New places of remembrance: Individual Web memorials in the Netherlands

Abstract
The establishment of places of remembrance in virtual space constitutes a new ritual to commemorate the dead, which aids in bereavement. The purpose of this study is to explore for whom individual Web memorials are meaningful places and how they are beneficial in bereavement. We analyzed 181 Dutch Web memorials and conducted content analysis of messages posted in four guestbooks. We found that parents in particular establish Web memorials in remembrance of their deceased children. The memorials provide access to a community of social support, consisting primarily of strangers and/or people who have experienced a similar loss. Although, Web memorials are meaningful to those who grieve, they do not replace traditional places of remembrance, but instead constitute an additional place. This suggests that traditional places are not sufficient for the establishers of Web memorials, that they are looking for something more. The nature of the death that they commemorate could provide an explanation. For survivors of sudden deaths, it was not possible to prepare for the death. The post-death ritual of creating a Web memorial helps the bereaved in addressing unfinished business with the dead, to express their loss and to come to terms with the death of their loved one.

4.1 Introduction
The Internet has provided a relatively new place for bereaved people to express their grief and to memorialize their deceased loved ones. One form of memorialization online is through posting memorials at websites known as Web cemeteries. These memorials primarily contain text but in some cemeteries it is possible to insert pictures and to add sound. Similar to the traditional cemetery, the Web cemetery provides a place to memorialize and visit memorials to the dead (Roberts & Vidal, 1999-2000). Unlike physical cemeteries, Web memorials allow anyone to commemorate a deceased loved one in his/her own way, whenever and from wherever he/she chooses, and to share memories and information about the deceased person with others (De Vries & Rutherford, 2004; Roberts, 2004a).

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Web memorials are virtual places that represent new opportunities for post-death rituals (De Vries & Rutherford, 2004). This phenomenon reflects changing attitudes towards dying and mourning in contemporary Western societies. Traditional religious rituals have fallen increasingly out of favor in the course of secularization and individualization (Bernts, Dekker & de Hart, 2007) resulting in a ‘quest for new rituals’ (Wouters, 2002). More than ever, people go beyond mourning practices and spaces provided by the traditional authorities of the church and the state (Clark & Franzmann, 2006). The creation of a Web memorial enables the bereaved to express their emotions freely in public spaces (Mellor, 1993), something often discouraged in contemporary Western societies in which death has been sequestered, that is, removed from the public sphere into the private world of the individual (Giddens, 1991; Mellor & Shilling, 1993). Public access to Web memorials makes it possible for bereaved individuals to meet and interact with people who have experienced a similar loss and offers a sense of empathy and support in a virtual community of grievers (Moss, 2004; Roberts 2004a, 2004b).

Several studies by Roberts (2004a, 2004b, 2006) indicate that Web memorialization is experienced as being beneficial in the bereavement process and thought to constitute a meaningful ritual. The purpose of this paper is to obtain a better understanding of those who create Web memorials in the Netherlands and how these memorials benefit the establishers. In doing so, we examine certain details of the persons who establish Web memorials (i.e. sex and relationship with the deceased person) and for whom they establish such memorials (i.e. sex, age and cause of death of the deceased person). This differs from other studies that focus on Web memorials established for a specific cause of death for instance, AIDS victims (Blando, Graves-Ferrick & Goecke, 2004), or particular relationships between the living and the dead, for example deceased mothers (Nager & De Vries, 2004) and deceased children (Peelen & Altena, 2008). Previous studies that focus on demographic characteristics of the memorialized deceased use descriptive statistics (De Vries & Rutherford, 2004; Roberts, 2004b; Roberts & Vidal, 1999-2000). This paper will contribute to the existing literature by applying a binary logit model that explains the demographic characteristics of the deceased that increases the likelihood of a Web memorial being established. In this way mutual dependency will be examined, rather than only the effect of single demographic characteristics.

4.2 Web memorialization: A meaningful post-death ritual
Several reasons are presented in the literature to explain why Web memorials are experienced as meaningful places of remembrance for their establishers (Roberts, 2006). First, the establishment and updating of online memorials involves writing about and to the
deceased person, which can be experienced as helpful and therapeutic (Lattanzi & Hale, 1984-85). That is, the act of writing enables the mourners to free themselves emotionally and express what they are really feeling (Marshall, 2000).

Additionally, Web memorials may allow the bereaved to continue their relationship with the deceased person. Guestbook entries and messages at Web memorials are typically written to the dead and demonstrate continuing bonds between the bereaved and deceased; that they will not be forgotten (Roberts, 2006). It is a way to sustain an ongoing relationship with the dead, instead of breaking ties between the bereaved and the dead and letting go (Klass, Silverman & Nickman, 1996; Walter, 1996).

The establishers of Web memorials may experience a sense of empathy and support in a community of grievers, where they can share about their loved one and their loss (Moss, 2004; Roberts 2004a, 2004b). The very personal stories of the bereaved persons become public as the Internet integrates personal and mass media, and enables the bereaved (visitors and establishers) to take part in a two-way communication. For example, messages of sympathy or condolences are sent to the bereaved by using the email link provided, or by posting in the guestbook, which is often provided at Web memorials. The described means of communication lead to an expansion of the support network including bereaved strangers who have experienced a similar loss, and/or to the maintainence of existing relations. Consequently, Web memorials provide a place for the bereaved to come together and to form a community of support (Roberts, 2004a, 2004b, 2006).

In view of unwritten social norms concerning in contemporary societies concerning who is entitled to grieve, Web memorialization offers an alternative ritual for a group of grievers who are inadvertently excluded from traditional grief and mourning rituals (De Vries & Rutherford, 2004). Often these grievers are members of a disenfranchised group, who in many cases have no recognizable kin ties with the deceased person, and whose loss is not socially considered to be important for example, friends, parents of miscarried children or pet owners (Doka, 1989). By creating a Web memorial, these disenfranchised mourners have equal access to a supportive community (Roberts, 2006). The duration of grief is another aspect for which unwritten social norms are constructed. It is generally expected that within one calendar year or less, the bereaved will be ‘over’ the loss and will function as before (De Vries & Rutherford, 2004). Although cyberspace is a recent phenomenon, the dead that are remembered and memorialized on the Web need not be. The Web enables relatives to (re)establish their bonds with the dead for decades to come (Roberts, 2004b).
4.3 Factors influencing the establishment of a Web memorial

From the literature on Web memorialization we identify several factors that determine whether a Web memorial is established. Firstly, demographic characteristics of the deceased person, such as the sex, age and cause of death, play a role. In Web cemeteries more males than females are memorialized (Blando et al., 2004), in particular young males in their late 40s (De Vries & Rutherford, 2004; Roberts & Vidal, 1999-2000). The relative youth of the deceased can be explained by the perceived tragedy of early death (Roberts & Vidal, 1999-2000). Roberts and Vidal (1999-2000) show further that although the single most reported cause of death was cancer, the majority of the causes were clearly sudden and violent such as murder, suicide, or accident, while other causes may have been sudden, such as heart attacks and strokes.

A second factor is the demographic characteristics of the establishers. The sex of the establisher of Web memorials is predominantly female (Roberts & Vidal, 1999-2000). An underlying explanation is that Web memorials provide an avenue for emotional expression, including grief, which tends to be more characteristic of women than of men (De Vries & Rutherford, 2004). Historically, women in particular have been identified as grievers, who wore mourning attire and visited the grave. Walter (1994) also suggests that men are less likely to use rituals; the same can also be assumed of electronic rituals (De Vries & Rutherford, 2004). However, in their study Blando et al. (2004) indicate that slightly more men than women established AIDS memorials. According to the authors, “this may be due to the fact that a disproportionately large percentage of persons who have died with AIDS in North America have been gay men, and friends and partners of these deceased individuals likely comprise a larger proportion of men” (Blando et al., 2004, p. 38). In general, the creators of Web memorials are typically younger or from the same cohort as the deceased (Roberts & Vidal, 1999-2000), which might be attributed to age-based computer skills (De Vries & Rutherford, 2004).

The third factor is the relationship between the bereaved person and the memorialized deceased. Although memorials are written by children, friends, grandchildren, parents, siblings, spouses and other family members, the majority of memorials are by children (De Vries & Rutherford, 2004; Roberts & Vidal, 1999-2000). In societies where the death of a parent is seen as “expected, timely, fair and less tragic”, children can be identified as disenfranchised grievers (De Vries & Rutherford, 2004, p. 19).

When we consider the demographic characteristics of the deceased person that are likely to determine the establishment of a Web memorial, such as age, sex and cause of death, we believe that isolating the effect of these single characteristics may provide a wrong impression, as some of the demographic characteristics are interconnected. For example,
from many studies it appears that the memory of especially young males is commemorated online. This could be explained by the fact that more men die in their youth. Also, the memorialization of certain causes of death could be explained by the prevalence of such deaths in younger age groups, or among young males, for instance traffic accidents. To overcome limitation of single characteristics, we examine the mutual dependency of all demographic characteristics of the memorialized deceased person by using a binary logit model.

In the Netherlands, research on Web memorials is limited. Despite the wealth of literature on this theme in the United States, the primary focus is on memorials in Web cemeteries (Roberts & Vidal, 1999-2000). This study will concentrate on individual Web memorials in the Netherlands, that is, memorials that are freestanding web pages instead of those that belong to collective web pages of Web cemeteries. We study this type of memorial as it is considered to be the most personal form of Web memorialization (Bijlsma & Moerman, 2009; Roberts, 2004a). The construction of an individual Web memorial provides mourners freedom to express their grief as they wish, because no standard template is used unlike virtual cemeteries (Roberts, 2004a). This freedom manifests itself as highly personal places of remembrance. Consequently, studying individual Web memorials provides a better understanding of the way grief is expressed and manifested online. The design and composition of the memorials provide a deeper insight into the ways bereaved persons create meaningful places of remembrance.

In the next section, the different sources of data and methodology used in this study are presented and discussed. In section that reports the results, first we elaborate on the design and composition of individual web memorials to provide the reader with an idea about the topic of investigation and how mourners use the internet to create meaningful places of remembrance. Then, we discuss for whom and by whom the Web memorials are established, and whether the bereaved persons create a community of support through setting up such Web memorials. Finally, we examine the memorial’s meaning and use over time, and present the conclusions of this study.

4.4 Methodology

The individual memorial websites are often posted as freestanding web pages and therefore more difficult for researchers to access as compared to virtual cemeteries where all Web memorials can be accessed from the starting page (Roberts, 2004a). However, in exploring the World Wide Web, we found a start page http://rouwverwerking-inmemoriam.startpagina.nl with links to 78 individual memorial websites. The individual memorial websites themselves were very helpful in locating additional sites, as many
contained links to others, which in turn offered links to other individual Web memorials. In order to enhance the representativeness of our data set besides the ‘snowball’ principle, we collected data by means of online search engines using different key words. The data collection resulted in a database of 181 individual memorial websites, of which 175 were established to commemorate one deceased person, six sites for two deceased persons and one for three deceased persons. All the deceased for whom a shared individual Web memorial was established were bonded by family ties. In our data set, a total of 190 deceased persons were commemorated by Web memorials.

Viewing our data collection critically, we believe that we have gathered a representative group of individual memorial websites in the Netherlands, through the use of different search methods. From email communication with the webmaster of the start page mentioned earlier, we learned that all memorial establishers could add the link of their memorial to the start page http://rouwverwerking-inmemoriam.startpagina.nl. Consequently, no selection process occurred on the basis of demographic background characteristics of the deceased or the cause of their death. Furthermore, we used the search engines to find additional sites, and consequently to establish a more representative group of memorial establishers. We continued the data collection till no new Web memorials could be found.

For all the cases in our database we included data from the Web memorials, the establishers and the deceased persons. First we added information on the design of the memorial (inclusion of photographs, music, videos, or poems), which provides information about the way mourners express their grief and create a meaningful place of remembrance according to their taste and needs. Second, we included demographic information of the deceased (sex, age and cause of death), and characteristics of the establisher (sex and relationship to deceased).

Furthermore, information about whether a memorial provides possibilities to interact with an audience (provision of a guestbook, links to other individual Web memorials or profile accounts) was noted in the database in order to indicate the opportunities that the memorial offers to build a community of support. Where reported, we included the date that the particular Web memorial was established in the database, which was mentioned in some cases on the website, or in statistics provided by the websites. In other cases, we used the first date of posting in the guestbook. It provides an indication about when the website was established and consequently indicates the time that had elapsed between the establishment and the death of the deceased.

Finally, we included data about the last activity at the Web memorial: the date of the last posting in the guestbook, or information on the website about its last upload, and in some cases, the date on which the bereaved requested that the site be no longer updated. Although,
the data of the first and last activity should be used with caution, because not all the websites contain this information \((n = 117)\), they do provide an indication about the duration of active use.

In addition to the constructed database, we used another source of data, namely messages posted in guestbooks. We selected four individual memorial sites to analyze the messages \((n = 1206)\) in the guestbook for their content, characteristics of the visitors, and their relationship with the establisher to obtain more insight into those who visit Web memorials. At the beginning of our selection procedure, we selected the guestbooks which contained more than 100 messages for analysis. Then we chose the guestbooks which included messages that provided information about the date on which they were posted as well as the name of the poster (in order to ascertain the sex of the visitor).

In order to obtain more insight into the contents of the guestbooks of those four Web memorials, the messages were coded using MAXQDA, a software program designed for text analysis. The entries were coded according to the relationship between the visitors and the bereaved. The categories used are direct family (i.e. parents, siblings and grandparents); acquaintances (i.e. friends, classmates and other people known to the bereaved); people that had experienced a similar loss; strangers (identified on the basis of messages which stated that the visitor did not know the establisher); and people whose relationship could not be identified. The names of the visitors and the date of posting were used to establish the frequency of visits to the guestbook and by whom, over time. While in one guestbook the sex of the guestbook posters was indicated by each posting, in the other guestbooks it was determined from their names.

The guestbook messages were analyzed using thematic content analysis to quantify the themes under consideration. An initial set of codes was established based on the work of De Vries and Rutherford (2004). Following a primary examination of the messages, other themes were formulated. A pilot coding procedure was applied, where three researchers coded 20 guestbook entries independently. The codes of these messages were compared and consequently the categories were refined and/or extended. This resulted in the following themes:

1. **Expression of sadness over the death or missing the deceased** (De Vries & Rutherford, 2004, p. 11). Recollections, expressions of loss or emphasizing the absence of the deceased are coded, as well as emotions described by visitors while reading the pages: “Tears rolled down my cheeks when reading your story”.
- **Cause of death** (De Vries & Rutherford, 2004, p. 11). The cause of death is mentioned or the circumstances in which the person died are described, such as the incomprehensible behavior of medical staff and anger because of perceived negligence. In the case of suicide, the ‘why’ question, expressions of incomprehension, references to possible motives and the last conversation are differently coded.
- **References to God** (De Vries & Rutherford, 2004, p. 11). References to God, heaven or religious rituals. For example: “I’ll pray for Tom”.
- **Reunion** (De Vries & Rutherford, 2004, p.11). References to the deceased who lives on and watches over the bereaved. For example: “I’m sure that [name deceased] proudly looks down at us”.
- **Expressions of support or sympathy**. Declarations of admiration for the way the bereaved deal with the situation as well as more general expressions of support and sympathy. For example: “I wish you much strength, because it is and stays very hard”.
- **Interaction**. Expressions resulting from some kind of communication or contact; by way of thanks for a guestbook entry or as a response to earlier contact or messages in the guestbook. Also, response resulting from media coverage of the Web memorial, for example in television documentaries or magazines.
- **Sharing the same name**. Visitors, with similar names as the deceased person, who indicated they came across the site when they searched the Web to find out more about their own name.

When analyzing Web memorials, several ethical considerations required our attention. Web memorials and guestbooks provide rich and unobtrusive data. The accounts are very personal and idiosyncratic, and according to Roberts (1999), they provide a better way of studying the impact of death on bereaved people and their grieving process than other unobtrusive measures such as obituaries or gravestones. The method of unobtrusive research does not require the researcher(s) to elicit information directly from the research subjects. Since the data is accessible to everyone who uses the Internet and the accounts are placed in the public domain by the mourners themselves, we did not feel constrained in using the data without the consent of those who established the memorials. Nevertheless, because of the highly personal nature of the communication, we made sure that the anonymity of the deceased persons and the establishers was preserved.
4.5 The design and composition of individual Web memorials

Individual Web memorials are highly personal places of remembrance and do not follow a standard template. We could however indentify common components. Overall, the Web memorials contain a home page which often welcomes the visitor to the site and provide links to chapters written about the deceased person. The reason for establishing the Web memorial is briefly described on the home page. The primary reason is to remember the deceased person, captured in phrases such as ‘in loving memory’ or ‘in memoriam’. Other reasons expressed by the establishers are to share their personal stories, experiences and emotions with others. This has helped them in their bereavement and they hope that it would provide comfort and support for others as well.

A commonly found menu of Web memorials offers chapters covering topics such as ‘The life of the deceased’, ‘Funeral’, ‘Pictures’, ‘Poems’, ‘Links’, ‘Awards’, ‘Guestbook’ and ‘Contact’. The life of the deceased, presents a short life history of the most important life events. In most cases the focus lies especially on the events leading up to death, e.g. the first symptoms of the illness, diagnosis, treatment, followed by death. If death was sudden, then the things that were done and said by and to the deceased person in the last days before death may be elaborated upon. The Funeral chapter may carry the death announcement card, pictures of the funeral, and the written texts of funerary speeches. The Pictures chapter usually contains a large number of photographs taken during any life event, but is usually limited to pictures taken a few years before death. When the deceased person concerns a child, pictures from birth till death are included, portraying their life history. The Poems section offers a place where the establisher and other bereaved people leave poems addressed to the deceased in which feelings of mourning and loss are expressed. The chapter labelled Links contains links to other individual Web memorials, as well as to foundations related to the cause of death (e.g. cancer foundation), or books that were considered helpful by the establisher in dealing with bereavement. A special type of link is the so-called ‘Award’. Overall, the awards consist of a picture of a deceased person or visualize them as angels or stars, and serves as a link to the website established by the award granter. Establishers of individual Web memorials give these awards to one another when the website touches them in some way. The Guestbook chapter is a place where visitors can read messages posted by other sympathizers and write messages to the establishers of the memorial, while the establishers themselves may also use the guestbook to thank or respond to other messages. At some memorials, visitors can place a message in the guestbook with a virtual bouquet of flowers, or with a lighted candle for the deceased person. These rituals indicate that although the virtual world provides a new place of remembrance, the performed post-death rituals clearly borrow elements from traditional rituals, such as placing flowers at the grave or
lighting a prayer candle which is a common practice in the Catholic Church. Finally, the Contact page offers an e-mail address or other contact information for visitors to contact the establisher of the Web memorial.

The most commonly used background colour of individual Web memorials is black or blue with white stars or clouds, representing arguably a kind of afterlife. Often used symbols are white stars, doves, angels, candles, roses, and hearts. These symbols are occasionally mixed with more personal symbolism; for example, a family with Scottish roots displayed their clan tartan on the site. Websites dedicated to deceased children deserve special mention, as these websites differ in their presentation. Websites for children are more colorful. The most commonly used symbols are butterflies, teddy bears, balloons or characters from children’s books or television programs. The symbolism of butterflies is known across the Netherlands to refer to the transition from life to death. The butterfly that flies out of its chrysalis symbolizes the soul that emerges from the mortal remains. The transformation from caterpillar to butterfly strikingly mirrors the Christian belief in the transition from life to death and resurrection (Peelen & Altena, 2008). Peelen and Altena (2008) also found that parents, who memorialize their deceased child on the Web, choose a design that is associated with the imagery of a child’s world, such as bright colours, images of bears, clouds, angels and hearts. This corresponds with the design of children’s graves at cemeteries that differs from the graves of adults in the use of colour (Hallam & Hockey, 2001).

The design and composition of the Web memorials demonstrate that they are very personalized places of remembrance and provide detailed information about the deceased person as well as the bereaved establishers. All websites contain the name of the deceased. Other very common features are the dates of birth and death (respectively 93.1% and 97.1%) and a picture of the deceased when he/she was alive (98.8%), while a few Web memorials carry pictures of the deceased after death as well. Music accompanied 38.7 percent of the websites, which was automatically activated upon visiting the site, or a particular section of the site. The sites for children often contain instrumental children’s songs. In other cases, it is the favourite music of the deceased or it is the music that was played at the funeral. Fourteen percent of the websites contain video files of the deceased when he or she was still alive.

The personal stories, pictures and in some cases videos provide the visitor an impression about the kind of person the deceased was. The construction of the memorial is a way to reconstruct the identity of a deceased loved one. Some Web memorials invite other mourners to share their own memories of the deceased, so that a shared construction of the deceased persons is created (Rosenblatt & Elde, 1990). It is through conversations with others who knew the deceased that a durable biography is constructed (Walter, 1996). For the
establishers it is a way to ensure that the deceased is not forgotten. This is in line with the ‘continuing bonds’ theory offered by Klass, Silverman and Nickman (1996), which is about integrating the memory of the deceased into the ongoing lives of those bereaved, instead of breaking ties between the bereaved and the dead and letting go.

4.6 For whom are Web memorials established?
To understand for whom Web memorials are established, we first determine the age, sex and cause of death of the deceased honored by a Web memorial in order to compare our findings with other studies on Web memorialization. Then, we examine the combined effect of age, sex and cause of death by applying a binary logit regression model. At the end of this section the data will be interpreted and discussed.

To compare the deaths memorialized on the Internet with all deaths in the Netherlands, the age of the deceased persons for whom a Web memorial is established is set against the distribution of the age of those who died in the Netherlands in the same period (see Figure 1).

Figure 1. The age distribution of deceased remembered by an individual Web memorial (left) and the age distribution of the dead in the Netherlands (right) in 1997 – 2008

Note: The frequency scales of the two figures are different

Figure 1 demonstrates that the age distribution of those honoured by a Web memorial is skewed to the left, as they are established for the young, while the age distribution of the deceased Dutch population is skewed to the right, because in general deaths occur in old age. Even though the Web memorials were dedicated to the deceased ranging from 0 till 89 years
old, the average age of death was 20 years ($SD = 19.8$), which is greatly influenced by the 0-4 age category, as the most memorials are created for those in that age group. The age of the memorialized dead differ greatly from findings in other studies on Web memorialization that report higher ages at death. In the Web cemeteries studied by De Vries and Rutherford (2004) and Roberts and Vidal (1999-2000) the average age was late 40s. When considering the sex of the deceased persons honoured by a Web memorial, we found that the percentage of males is higher. This finding matches Roberts and Vidal’s (1999-2000) study. However, in our study the difference between males and females was small, respectively 52 and 48 percent, compared to their finding (62% for males and 38% for females).

Our results further showed some remarkable differences between the distribution of causes of death in the entire Dutch population and the distribution of the population honoured by an individual Web memorial (see Table 1).

Table 1. Causes of death of the deceased memorialized by a Web memorial and the Dutch population (1997-2008)

<table>
<thead>
<tr>
<th>Causes of death</th>
<th>Deceased memorialized by Web memorials</th>
<th>Dutch population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Traffic accident</td>
<td>19.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Neoplasm (cancer)</td>
<td>18.9</td>
<td>28.8</td>
</tr>
<tr>
<td>Murder</td>
<td>14.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Conditions originating in the perinatal period</td>
<td>13.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Congenital anomalies</td>
<td>12.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Suicide</td>
<td>6.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Diseases of the circulatory system</td>
<td>4.4</td>
<td>33.3</td>
</tr>
<tr>
<td>Other accident</td>
<td>3.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Diseases of the nervous system</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Chronic lower respiratory diseases</td>
<td>1.3</td>
<td>4.7</td>
</tr>
<tr>
<td>Endocrine, nutritional and metabolic diseases</td>
<td>1.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Diseases of the musculoskeletal system andconnective tissue</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>All other a</td>
<td>2.5</td>
<td>25.8</td>
</tr>
<tr>
<td></td>
<td>100.1</td>
<td>99.8</td>
</tr>
<tr>
<td>N=159</td>
<td>N=1,655,432</td>
<td></td>
</tr>
</tbody>
</table>

Note. Cause of death was classified using the major categories of the International Classification of Disease (ICD, 9th revision) as defined by the Statline application of Statistics Netherlands

a This category is classified by the authors to group all other categories of the ICD
From table 1 it is clear that causes that occur at a very young age such as conditions originating in the perinatal period and congenital anomalies are overrepresented in the individual Web memorials, reflecting the causes of death of the youngest age group (see Figure 1). Other causes of death that are overrepresented in Web memorials are traffic accident, cancer, murder, whereas diseases of the circulatory system is the most common type of death in the Netherlands, but is underrepresented in Web memorials.

In order to understand the relative importance of each demographic characteristic, we applied a binary logit regression analysis. As dependent variable we used a dichotomous variable measuring whether a Web memorial was established. This variable is defined in such a way that having a Web memorial is coded 1 and having no Web memorial is 0. The cases that score 0 on the dependent variable are all deaths in the Netherlands over the period 1997-2008 minus the memorialized deceased included in our database. A concern is the large difference between the number of cases in the model for whom a Web memorial has been established \((n = 159)\) as compared to those without such a memorial \((n = 1,655,273)\). Therefore, we have also applied a probit regression model, which is developed to accommodate the analysis of dependent variables that contain many zeros. We found that the results of the probit analysis were highly similar to those produced by the logistic regression model. As the outcomes of the logistic regression approach allow for easier interpretation, we provide the results of this approach in this paper.

We used the deceased’s sex, age and several causes of death as independent variables (see Table 2). We inserted seven causes of death in our regression model. The other causes as presented in Table 1 could not be used in the model, because some were too small in number and others correlated highly with the variable age, such as conditions originating in perinatal period, which only occurs in the youngest age category. This did not apply to congenital anomalies and this cause of death could therefore be used in the model.

The results of the logistic regression show that the younger the person’s age at death, the greater the likelihood that an individual Web memorial would be established. Furthermore, the results of the logistic regression analysis show that females were more likely to have an individual Web memorial founded for them than males (discussed later).

The logistic regression showed that traffic accidents, suicides, murder, congenital anomalies and neoplasms were positively significant and increased the likelihood of having a Web memorial established. Overall, the results of our logistic regression show that the background characteristics, such as age and cause of death, that significantly affect the likelihood of the establishment of a Web memorial are ‘bad deaths, e.g. traffic accidents, suicides and murder.
Table 2. Predictors of the creation of Web memorials

<table>
<thead>
<tr>
<th>Background characteristics of memorialized deceased</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exp (B)</td>
<td>Exp (B)</td>
</tr>
<tr>
<td>Sex (0=female)</td>
<td>-0.425(0.163)***</td>
<td>0.654</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5 years</td>
<td>5.733(0.324)***</td>
<td>308.910</td>
</tr>
<tr>
<td>6-19 years</td>
<td>5.177(0.315)***</td>
<td>177.112</td>
</tr>
<tr>
<td>20-39 years</td>
<td>4.535(0.278)***</td>
<td>93.235</td>
</tr>
<tr>
<td>40 years and older (reference group)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causes of death b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diseases of the circulatory system</td>
<td>-0.117(0.450)</td>
<td>0.890</td>
</tr>
<tr>
<td>Traffic accident</td>
<td>1.971(0.307)***</td>
<td>7.181</td>
</tr>
<tr>
<td>Other accident</td>
<td>0.741(0.499)</td>
<td>2.098</td>
</tr>
<tr>
<td>Suicide</td>
<td>1.072(0.409)***</td>
<td>2.922</td>
</tr>
<tr>
<td>Murder</td>
<td>2.796(0.304)***</td>
<td>16.385</td>
</tr>
<tr>
<td>Congenital anomalies</td>
<td>0.538(0.295)*</td>
<td>1.712</td>
</tr>
<tr>
<td>Neoplasms (cancer)</td>
<td>1.110(0.295)***</td>
<td>3.033</td>
</tr>
<tr>
<td>All other causes of death (reference group)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer_age2</td>
<td>1.356(0.760)*</td>
<td>3.882</td>
</tr>
<tr>
<td>Cancer_age3</td>
<td>0.140(0.699)</td>
<td>1.150</td>
</tr>
<tr>
<td>Traffic_age2</td>
<td>-1.888(0.830)**</td>
<td>0.151</td>
</tr>
<tr>
<td>Traffic_age3</td>
<td>-2.286(0.699)*</td>
<td>0.102</td>
</tr>
<tr>
<td>Circulatory_age1</td>
<td>1.919(1.285)</td>
<td>6.812</td>
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<tr>
<td>Circulatory_age3</td>
<td>1.688(1.019)*</td>
<td>5.408</td>
</tr>
<tr>
<td>Suicide_age2</td>
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<td>2.663</td>
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<td>Suicide_age3</td>
<td>-1.424(1.404)</td>
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<tr>
<td>Murder_age1</td>
<td>-3.360(1.191)***</td>
<td>0.035</td>
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<tr>
<td>Murder_age2</td>
<td>-2.260(1.071)**</td>
<td>0.104</td>
</tr>
<tr>
<td>Murder_age3</td>
<td>-1.909(0.784)**</td>
<td>0.148</td>
</tr>
<tr>
<td>Otheraccident_age3</td>
<td>1.495(1.228)</td>
<td>4.458</td>
</tr>
<tr>
<td>Constant</td>
<td>-11.385(0.303)</td>
<td>0.000</td>
</tr>
</tbody>
</table>

| N                  | 1 655 432 | 1 655 432 |
| Nagelkerke R2      | .297      | .311      |
| -2 loglikelihood   | 2292.731  | 2245.867  |
| Chi-square         | 966.966   | 1013.830  |

* Dependent variable: having a Web memorial established (yes = 1, no = 0)
|b Whether the memorialized person died because of the particular disease (yes = 1, no = 0)
* p<0.1, ** p<0.05, *** p<0.01, df=1
Source: Data of Statistics Netherlands and authors’ database (1997 – 2008)
Although there are many different perceptions of what could be considered a ‘good’ or ‘bad’
death across cultures and times, there are many similarities. In particular, while modern
societies have apparently been successful in controlling circumstances surrounding death, the
deaths that occur suddenly, unexpectedly, violently or without warning, before a fulfilled life
could be achieved, away from home and without opportunity for closure, are considered as
‘bad’ deaths (Seale & Van der Geest, 2004). Some of these deaths could be regarded a
disenfranchised death as well, suicide is considered a taboo. It is not socially sanctioned and
possibly shameful. The person who takes his/her life is thought to be responsible for his/her
death and therefore not deserving of being mourned for (Doka, 1989).

However, one outcome of the logistic regression model does not justify the ‘bad’ or
disenfranchised death explanation, as the model shows that cancer has a significant effect on
the likelihood that a Web memorial would be established. In other words, when a person dies
of cancer it is more likely that a Web memorial would be created to commemorate the
deceased. Although, in some cases cancer may lead to an expected and sudden death,
commonly the progression towards death is gradually, and therefore this cause of death
contains elements of what is considered a ‘good’ death, that is a death that occurs at home,
with family members present, in the absence of violence, and to a certain extent indicating
control over events (Seale & Van der Geest, 2004).

As we expect that the effect of cancer is driven by younger age groups we explore the
possible interaction effects. An interaction effect occurs when the effect of one independent
variable on the dependent variable depends on the level of a second independent variable.
For example, we may find that the influence of a cause of death on the establishment of a
Web memorial is different for each age group (0-5, 6-19, 20-39, 40+). Table 2 shows the
second regression model in which we included the interaction effects between the causes of
death and the age groups. The model does not comprise all the interaction effects as some of
these effects consist of very small cell counts and consequently cause quasi complete
separation in the data. We found a significant positive interaction effect for cancer and the
second age group (6-19 years), which indicates that people who have died because of cancer
in that particular age group have a significant higher probability that a Web memorial is
established. A possible explanation, which may also explain the higher probability of
congenital anomalies, is the relationship between the establisher of the Web memorial and
the deceased person. Parents seem to be the biggest group of establishers in the Netherlands,
which will be discussed later. The death of a child can be typified as a disenfranchised death
as the loss of a small child is often felt to be underestimated in contemporary society, since
the grief of often differs from what is considered as a normal response to the loss of a person
who did not live or lived only briefly (Doka, 1989). The effect of the 6-19 years age group
dominated the outcome of cancer in the first model. With the insertion of the interaction effects in the second model, cancer does not hold its significant effect on the establishment of a Web memorial.

A study by Roberts and Vidal (1999-2000) show that a high percentage of the cause of death reported in Web tributes is clearly sudden in nature. Roberts and Vidal argue that this might have to do with the young age of the deceased, since a larger percentage of the young die in accidents. Based on the results of our logistic regression, we argue that irrespective of the age of the deceased, the sudden and unexpected nature of death influences the probability that a Web memorial would be established. Moreover, we found that traffic accidents, suicides, murder and congenital anomalies, which we labelled as ‘bad’ and disenfranchised deaths, were positively significant and increased the likelihood of having a Web memorial established.

4.7 By whom are the Web memorials established?
The establishers of individual Web memorials were generally family members, in particular a parent or both parents of the deceased (42%). Also family groups, brothers and sisters of the deceased together with the parents, were often mentioned as founders of Web memorials (27%). These findings differ from other studies that show that most memorials were established by children (De Vries & Rutherford, 2004; Roberts & Vidal, 1999-2000). There were some cases of children founding an individual Web memorial, but in our study this is not common (6%). Other establishers were sibling/s (7%), friend/s (3%), and grandparent/s (2%). We could not determine the relationship in six percent of the cases. One website was designed by the deceased himself when he was alive, in preparation for his death. This individual suffered from a chronic disease and was often hospitalized. He wrote texts on the website for surviving relatives. After his death, the website was maintained and updated by a family member.

In order to explain the higher probability of a Dutch Web memorial being established for women as described earlier, we examined the sex of the deceased person and the relationship between the establisher and the deceased by using chi-square tests. These tests showed that children, although they comprise a small proportion of the total of establishers, were more likely to memorialize females, that is their mothers, than males ($\chi^2 (1) = 2.270$, $p < 0.1$). This finding is difficult to interpret as little research has been conducted on relationship differences in memorialization trends (Blando et al. 2004). A possible explanation is provided by Nager and De Vries (2004) who used the attachment theory (Bowlby, 1969, 1977) to obtain a better understanding of adult daughters who memorialize their deceased mothers online. This theory tries to explain how individuals connect with
another and why they establish these connections. According to Nager and De Vries (2004), “an attachment represents an affectional bond that has been established between two persons, a bound that is believed to be so robust and a connection so strong that it endures over the lifetime and beyond” (p. 44). The earliest attachment bond is that between parents, mothers in particular, and their infant child. When a mother dies, the implication is that not only the child loses that attachment figure, but also the longest-standing relationship with another person as well (Nager & De Vries, 2004). One way of continuing this bond is through the establishment of a Web memorial.

The majority of the Web memorials was established by bereaved females. However, there was a sizeable group that comprises both sexes. We found that although on the website it is mentioned that it is established by the parents and/or together with siblings of the deceased child, it is in particular the mother who reports about the life and death of her deceased child, which is in line with findings by Peelen and Altena (2008).

Our findings show that parents and in particular mothers establish a Web memorial to remember and to commemorate their deceased child. Outsiders often underestimate the death of a small child, especially one who dies in childbirth. For parents a Web memorial is an important means to recognize the short existence of their child, as the memorial enables them to construct and preserve the identity of their deceased child. Especially when the deceased is the first child of a couple, the Web memorial is an instrument that helps them to construct an identity as parents as well (Peelen & Altena, 2008).

Because the loss that parents experience is often underestimated in Western societies, bereaved parents could be seen as disenfranchised grievers. The grief of a parent often differs from what is considered as a normal response to the loss of a loved one (De Vries, Dalla Lana & Falck, 1994).

Another disenfranchised group is the long-term griever (Roberts, 2004b). Web memorials provide a place to express grief, long after the socially accepted duration of one calendar year or less (De Vries & Rutherford, 2004). We examined the time that elapsed between death and the establishment of the memorial, by using the date of death of the deceased person and the date of first visible activity on the Web memorial. We found that the majority of the Web memorials were constructed within the first year after the death (55.6%). However, a considerable group of establishers could be seen as disenfranchised grievers as their memorials were established longer than a year after the death of their loved one (see De Vries & Rutherford, 2004). After a lapse of two years since death, 36 percent of the memorials were established, after four years 19 percent and after six years 12 percent.
4.8 Virtual communities of support?
The analysis of individual Web memorials demonstrates that the memorials incorporate several factors that make it possible to create a network of bereaved people and to facilitate a community of support. We found that almost all the memorials contain modes of interaction (91%), such as a guestbook (74.6%) and/or email address (61.3%), or in a small number of cases the link to a social network site (1.2%), so that communication between establishers and visitors can occur. Moreover, we found that 62.4 percent of the Web memorials were connected to other Web memorials. The special type of link, the so-called award, was most usually awarded to websites in memory of children who had passed away and could be seen as an indicator of a virtual community of support for bereaved parents in the Netherlands and beyond, as this network also contains Flemish websites. Websites were more likely to be linked to the websites of persons who had died under similar circumstances (age and/or cause of death). This appears especially to be the case for websites dedicated to young children. It implies that founders look for support from those who had gone through similar experiences. In order to gain more insight into the virtual community, we identified the people who posted messages in the guestbooks and their relationship with the establisher(s) of the Web memorial. We coded the guestbook messages of four Web memorials \(n = 1206\). The majority of the messages were posted by persons who did not know the deceased (42.9%) and those who had undergone a similar experience (25.4%). Only 11.1 percent of the messages were posted by people known to the bereaved and 1.7 percent by surviving relatives. We found that of all the messages, 81.0 percent of the messages were written by women, compared to 7.1 percent by men, while 7.2 percent of the messages were posted by more than one person, while the sex of 4.7 percent of the posters could not be determined.

The thematic content analysis of the messages posted in four guestbooks indicate that the means of communication facilitated by the Web memorial are used by visitors of the guestbooks. A considerable number of the messages (34.8%) showed indications of interaction, referring either to earlier messages posted in the same guestbook or posted on another memorial, or referring to earlier contact via e-mail. The most common type of message was one of (emotional) support for the founder(s) and his or her family (79.4%). References to mourning or missing the deceased were also found (20.3%), and expressed by people who did not know the deceased person, but recognized the tragedy of the loss. The cause of death was mentioned in some messages (17.3%), most notably on the website dedicated to a person who had committed suicide. In terms of the contents of these messages, people expressed their inability to understand why the deceased had chosen to commit suicide, or, more directly, asking why he or she had chosen to do so. Whereas in Western societies suicide is believed to be a taboo and consequently the surviving relatives could be
seen as disenfranchised grievers (Doka, 1989), on the Web this cause of death appears to be less of a taboo. This suggests that the Web memorial provides a way for these disenfranchised grievers to emotionally express themselves, and the explicit mentioning of the cause of death is a way to come in contact with others who have experienced a similar loss. Messages referring to the afterlife, religion or God were uncommon (2.2%), confirming the notion that the Netherlands is one of the more secular countries in the world (Venbrux et al., 2009).

Based on our findings presented in the proceeding, we can conclude that through the establishment or visiting of individual Web memorials, access is provided to a community of support. Although the notion of a virtual community is proposed in studies on Web cemeteries, no research has been conducted as to whether or not this is applicable to individual Web memorials as well. The existence of a community around Web cemeteries appears to a certain extent unsurprising as the collective nature of Web cemeteries unites the bereaved who establish a memorial. However, our study shows that the Internet provides additional ways to experience a virtual community of support, that is in the form of individual Web memorials.

4.9 The meaning of Web memorials over time
As indicated before, we found that establishers are motivated to start an individual Web memorial in order to remember and commemorate a deceased loved one. It helps them in the process of bereavement. However, how long does the memorial carry this purpose? It may be reasonable to assume that once a website has provided the support sought, it would lose its meaning and will eventually be removed. To examine the length of existence of memorials, we looked at the first activity and the last activity as stated on the site. We found that the time that elapsed between the first and last activity was 4.8 years on average ($SD = 2.58$). Such a duration is an indication that could still be extended as many of the Web memorials were still ‘active’, that is half of the websites showed their last activity within the last half year of the study period.

The guestbooks of the four selected Web memorials provided information about the date that the messages was posted and the frequency of visits. The majority of the messages were posted within the first half year after the first activity (51.5%). On average, about 15% of the total messages were posted each successive year. However, the number of posts declined over time. The visitors who continue to leave messages in the guestbook were in particular strangers. Around the date of birth and the date of death of the deceased person, increased activity is observed in the first two years, which demonstrates the commemorative purpose of the websites. Similar rituals around these dates are seen at cemeteries (Francis et
al., 2005) and at roadside memorials (Klaassens et al., 2009). After two years, the level of activity around these special events was reduced.

Although it seems that the memorial loses its purpose over time as activities and visits become less frequent, they remain important as only 13 of the studied Web memorials (7%) were closed down during our research period. Four of these Web memorials were GeoCities websites and were closed down by the host Yahoo in 2009, rather than by the establishers themselves. A study by Roberts (2004a) in which the authors of memorials in Web cemeteries were surveyed, showed that a huge majority of their respondents (79%) would not remove their Web memorial on their own accord. This is also the experience with the establishers of roadside memorials, who could not imagine removing the memorial (Klaassens et al., 2009). An explanation for sustaining the Web memorials is provided by Peelen and Altena (2008), who argue that the purpose of the Web memorials changes over time. Initially, the Web memorial serves as a place for daily reflection and a way to foster contact with other bereaved. Over time, it gradually develops from an actively visited and updated site, into a more static tribute in virtual space. A previous study on roadside memorials showed that establishers found it difficult to remove a memorial that was initially established as a means to maintain ties with a deceased loved one, as removal implicitly suggests that the surviving kin are breaking such ties (Klaassens, Groote & Vanclay, forthcoming). Arguably, it could be experienced as if the bereaved people lose the deceased person for a second time.

4.10 Conclusion
The purpose of this study was to obtain a deeper understanding of those who create Web memorials in the Netherlands and how these memorials offer comfort in their bereavement. We found that in particular parents establish an individual Web memorial in remembrance of their deceased child. This contrasts with other studies on Web memorials in the United States, where the majority of memorials are established for parents (De Vries & Rutherford, 2004; Roberts & Vidal, 1999-2000). The former group of mourners could be typified as ‘disenfranchised grievers’ as the loss of a small child, especially newborn or stillborn babies, is often underestimated and it explains the peak in individual Web memorials dedicated to the youngest age group. The creation of a personal Web memorial enables the mourners to (re)construct and preserve the identity of the deceased person, and to make that person a part of their own lives. It is a way to continue the bonds between the living and the dead, so that the dead will not be forgotten.

Individual Web memorials provide access to a community of support. This community is dominated by women who comprise the main establishers of the Web
memorials, as well as the main visitors who write messages in the guestbooks. Web visitors are primarily strangers and/or people that have experienced a similar loss, who express their (emotional) support to the founder(s) and his or her family. The virtual Web memorial provides an additional network of support for disenfranchised griever and people commemorating a ‘bad’ death. For survivors of a ‘bad’ death, that is, death that occurs suddenly and unexpectedly, it is not possible to prepare for and come to terms with the death. In these cases, post-death rituals such as writing electronically could help the bereaved persons to address unfinished business with the dead, to express their loss and to come to terms with the death of their loved one. This does not mean that traditional places of remembrance have been replaced by virtual memorials, because we found that at least 61% of the establishers have physical places of remembrance, as their memorial also carry pictures of a grave, urn and/or roadside memorial. This suggests the idea that the bereaved who have established a Web memorial were looking for additional channels to articulate their grief.

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References


