Visualising the ends of identity: pre-birth and post-death on Instagram

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ABSTRACT
This paper examines two ‘ends’ of identity online – birth and death – through the analytical lens of specific hashtags on the Instagram platform. These ends are examined in tandem in an attempt to surface commonalities in the way that individuals use visual social media when sharing information about other people. A range of emerging norms in digital discourses about birth and death are uncovered, and it is significant that in both cases the individuals being talked about cannot reply for themselves. Issues of agency in representation therefore frame the analysis. After sorting through a number of entry points, images and videos with the #ultrasound and #funeral hashtags were tracked for three months in 2014. Ultrasound images and videos on Instagram revealed a range of communication and representation strategies, most highlighting social experiences and emotional peaks. There are, however, also significant privacy issues as a significant proportion of public accounts share personally identifiable metadata about the mother and unborn child, although these issue are not apparent in relation to funeral images. Unlike other social media platforms, grief on Instagram is found to be more about personal expressions of loss rather than affording spaces of collective commemoration. A range of related practices and themes, such as commerce and humour, were also documented as a part of the spectrum of activity on the Instagram platform. Norms specific to each collection emerged from this analysis, which are then compared to document research about other social media platforms, especially Facebook.

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Introduction
The beginning and ending of life are moments where groups communicate extensively, sharing the full range of human emotion, where those being discussed are not able to directly participate in the dialogue. In this article we explore these exchanges online by examining the two ‘ends’ of identity – birth and death – as they are captured and discussed on the visual social media platform Instagram. Focusing on two events within the wider experience of birth and death – ultrasounds during pregnancy, and funerals – we examine both ends of identity in an attempt to surface commonalities in the way that individuals...
use visual social media when sharing information about others who cannot speak or inter-
act for themselves: the latter shape the content (and may appear within it), and are respon-
sible for the meaning drawn from it, yet are not directly or explicitly participating. Our 
investigation is framed by questions of privacy, agency and legacy, which are inescapable 
in the contemporary context of an online culture where real identities are the norm, and 
information surveillance of various forms are commonplace. However, given the paucity 
of research on the Instagram platform to date, we also document other frames and themes 
that emerge, demonstrating a wider range of visual social media uses and practices relating 
to birth and death. These life processes are complicated and feature various events, the 
details of which are represented in (and influenced by) social media activity and the afford-
dances of individual platforms: the analyses featured in this paper focus on one platform 
and specific aspects of birth and death with their own particular practices (culturally and 
through their depiction on social media), but these also call for further examination of how 
birth and death are experienced and represented on different platforms.

Existing literature regarding foetal ultrasound sharing on social media is minimal: 
emerging literature has focused on the way ultrasound sharing is an increasing part 
of the ritual of pregnancy (Lupton, 2013); is part of a trend towards gamifying and reg-
ulating pregnancy via apps (Lupton & Thomas, 2015); and normalises a culture of 
sharing and surveillance of young people by parents (Leaver, 2015b). Our examination 
is framed with these existing rituals and questions of regulation and surveillance in 
mind, but also specifically focuses on the question of sociality and how ultrasound 
sharing is situated more broadly in everyday sharing practices relating to the begin-
nings of life.

To date, most studies examining death and mourning on social media have focused on 
Facebook (Kohn, Nansen, Arnold, & Gibbs, 2012; Pennington, 2014) or now largely 
defunct platforms such as MySpace (e.g., Brubaker & Hayes, 2011). As Marwick and Elli-
son note, memorialisation and identity are complicated terrain on social media: 
‘impression management is complicated in Facebook memorial pages, as the person is 
not present in the social network to censor or monitor what is said about him or her’ 
(2012, p. 381). Social media traces and assets left behind by deceased users present ongoing 
issues without clear processes clarified neither by social norms nor by legal precedents 
(Acker & Brubaker, 2014). While the various overlapping contexts of mourners can pro-
duce antagonistic responses, Facebook memorial pages and memorialised accounts never-
thess clearly focus on a deceased individual and the comments left shape that person’s 
social media legacy, often quite profoundly (Marwick & Ellison, 2012). Affording a collec-
tive and often public space for online mourning regarding a specific individual also brings 
the challenge of deliberate desecration and ‘trolling’ of these spaces (Phillips, 2011). 
Mourning on the Instagram platform provides a markedly different type of space; while 
Facebook profiles and pages are anchored to the deceased individual, in addition to indi-
vidual users’ expressions of grief and reflection on their own timelines, this memorialisa-
tion process is not yet in place on Instagram. Instead, Instagram mourning is framed by 
the accounts of users who are in mourning. Individual users thus use Instagram (as well as 
other social media) to document their own loss and grief as part of a stream of personal 
imagery, most of which is unlikely to be related to death, rather than as a bespoke and 
specific arena for grieving or remembrance.
The ends of identity

There are many ways of conceptualising identity and personhood as mediated by social and digital media, but one of the most popular frameworks is that of the networked self and networked publics. As boyd (2010) argues, this framework for understanding identity online emphasises four core characteristics: firstly, that personal data is persistent, where once created or shared it does not necessarily ever go away and may remain available in various forms indefinitely; secondly, identity information is easily duplicated and is thus replicable; thirdly, data about individuals are infinitely scalable in that the difference between making one copy or a thousand copies is insignificant across digital networks; and finally, identity information is searchable in that the main way that identities are accessed and organised is via platforms either dedicated to search (such as Google) or widely searchable (such as Facebook). Importantly, identity information also circulates on primarily corporately owned platforms, subject to legal Terms of Use more so than government regulation (Aufderheide, 2010). Helmond (2010) adds two important points: online identities are never treated as complete, instead platforms always encourage sharing of more and more material; and identities are not just formed by users themselves, but are also shaped by what other people post about that individual, making identity fashioning online a co-creative process. The shared assumption underpinning these models is that individual user agency is the key to managing online identities. In many cases, this is the appropriate response, and making platforms more accountable, or protecting individual privacy more comprehensively, may be achieved by giving users more granular control of what information is shared with specific audiences. However, in contexts where the individuals being talked about lack agency, solutions are less clear-cut.

Sociologist Goffman (1959) argued that self is a presentation or performance, although not an insincere one, but rather the sense of self put forward is contextually determined: in each context a particular self is performed on the frontstage, while the more essential self, inaccessible to others, is backstage. Extending Goffman’s metaphor, examining the ends of identity— that is, looking at birth and death as part of identity—begs the questions who builds the stage, and how will the performance be remembered? More explicitly, who has the reigns of a young person’s online identity before that person can exercise agency themselves, and how are the digital and online traces of someone’s life managed after they die?

While identities on the internet and the early world wide web were often very fluid, with individuals often using a range of avatars and handles as their names and faces in everyday exchanges, that is far from the norm today. Rather, both national governments and large online corporations have systematically pushed towards what is often dubbed the real-name web, where a single authentic self, name and identity is expected in both online and offline contexts (van Dijck, 2013; van Zoonen, 2013). This is typified by Facebook and Google not only providing their own encompassing platforms, but also acting as identity arbiters, offering to authenticate and verify user identities to log into other online platforms, tools and services (Helmond, 2015). However, for a range of people and groups the loss of anonymity or even acceptable pseudonymity in many contexts can prove harmful (van der Nagel & Frith, 2015). When exploring the ends of identity, the persistence of a single authentic online identity means that information shared about young people or babies, even before they are born, may very well persist as an inescapable part of the
way they are represented online (Leaver, 2015b). Similarly, mourning practices and personal grief at funerals may end up permanently added to the digital traces found through search engines after a person has passed away (Marwick & Ellison, 2012). These elements are also intrinsically linked to the individuals sharing the content: the traces may influence targeted advertising and algorithmic recommendations based on birth- and death-related content, regardless of the context and indeed what happens after posting (e.g., whether a previously announced pregnancy is successful or not).

The circulation of ultrasounds and mourning on social media has gradually become a normalised part of everyday online interactions, at least within a Western context (and how pregnancy, birth and death more broadly expressed and depicted online are also a response to cultural norms and rituals). Indeed, sharing of the first ultrasound images on social media has become a ‘rite of pregnancy for many women’ (Lupton, 2013, p. 42), with the first scan often celebrated as something akin to the first baby photo. This form of sharing can be understood as ‘intimate surveillance’ which entails the ‘purposeful and almost always well-intentioned surveillance of young people by parents, guardians, friends, and so forth’ (Leaver, 2015b). Intimate surveillance captures the tension that comes with celebratory sharing which, often inadvertently, might begin a long trail of personal information tracked by online corporations for the purposes of identifying the details of individuals in order to maximise their advertising capabilities. In terms of mourning and digital legacies, social media material created during periods of mourning and the already existing traces of individuals which persist posthumously present new challenges in terms of memory, archives, inheritance and cultural heritage (Leaver, 2013; Pitsillides, Jeffries, & Conreen, 2012). Deciding what information about someone persists after they die, in which contexts and who gets to make that determination is a complex arena in which there are neither legal nor cultural norms for online behaviour and practice. Our analysis here focuses on personal experiences and narratives, where information about the deceased might be less (publicly) known than for celebrity cases, where a marked difference in the scale of coverage and processes of shared grieving may be apparent (Harju, 2015). At the same time, though, the processes of engaging with birth and death on social media may take similar forms for the personal and mundane and the extraordinary and celebrity, at different scales, and the ideas and implications of constructing meaning through others, of unknown performativity and projecting upon these individuals, are important considerations in these settings. Thus, our aim in focusing on birth and death, on those areas which necessarily address individuals who do not have their own agency on social media, is to develop a more robust understanding of networked digital communication and identity practices where identities, communication and memory are necessarily social, mindful of the uneven power dynamics of that sociality (Leaver, 2015a).

**Method: collecting Instagram images**

As van Dijck (2008) argues, while digitisation is far from the only cause, it is nevertheless the case that as part of recent social, cultural and technological shifts, digital photography has substantially increased the use of photographic images as means of communication, identity formation and social interaction compared to more historical understandings of photography as a medium of memory. The particular aesthetics and affordances of
the visual social media app and platform Instagram, including its mobile nature and growing popularity, enable both popular practices and its own uses and tropes, its ‘platform vernacular’ (Gibbs, Meese, Arnold, Nansen, & Carter, 2015). This is not uncontested, though, for the norms and guidelines of Instagram may promote or deny particular media types or content (as political, hateful or inappropriate, for instance), which may also be circumvented or challenged (Olszanowski, 2014; Tiidenberg, 2015).

Instagram was chosen as a source for visual social media around birth and death due to the platform’s increasingly widespread use and the comparative accessibility for researchers, compared, for example, to its larger parent corporation Facebook. Launched in 2010 and bought by Facebook in 2012, Instagram reports having 400 million active users, is available on Android and Apple devices, and continues to evolve as a platform in its own right. Accompanying this growth has been a related app ecology with a huge range of third-party apps, as well as Instagram’s own Layout, Hyperlapse and Boomerang.

Utilising Instagram mapping methods we have detailed in depth elsewhere (Highfield & Leaver, 2015), we used the Instagram application programming interface (API) to collate metadata about items in which the media item’s caption included specific hashtags. The resulting metadata included a range of potential fields, including details about the Instagram user, the date, a location or geographic coordinates (if specified), the caption (text accompanying the visual media), the number of comments from other users, the number of likes and so forth. Notably, these metadata fields are publicly available not only to researchers, but other Instagram users, corporations or anyone accessing Instagram either via the app, third party tools or directly via the API.

Derived from social and technical conventions normalised on other platforms (Halavais, 2014; Page, 2012), hashtags provided a clear mechanism to surface Instagram media relating to birth and death. There are a wide range of terms relating to birth and death and in our exploratory searches to identify those widely used we ran hashtag searches on the following terms: born, birth, newborn, ultrasound, sonogram, dead, death, RIP, grave, funeral, memorial, vale and in memorium. After sorting through the first 40 results from each term of relevancy (proportion linked to the concept being explored) and currency (number of images within the last 24 hours) initially, four hashtags were tracked: #birth, #ultrasound, #RIP and #funeral. However, both the #RIP and #birth hashtags proved to be used in a very wide manner, hailing such a diverse range of practices and events that they proved overwhelmingly complex. Instead, we focused on two event-specific tags associated with birth and death as a means of variously thinking about pregnancy and birth, and visualising individuals before they are born, and of exploring the way posthumous individuals are visualised and memorialised on social media. These collections only represent certain moments, occurring before and after birth and death, respectively, and neither depicts actual birth or death: we use these collections as a starting point for a wider consideration of identity and sharing practices that concern both the individuals posting the media and others who are explicitly and implicitly featured yet not actively participating in the creation or publication of this content. We were mindful, too, that just because these items had specific hashtags, these tags do not necessarily indicate the person posting intended or imagined that the images were part of a meaningful collection of funeral-related or ultrasound-related media. These tags are unlikely to suggest the users in question were seeking to be part of an imagined community of ultrasound sharers or mourners on Instagram. Rather, the use of hashtags in both of these instances appears
largely descriptive, explaining to that user’s existing audience the context and content of the media shared. Finally, while not featured in the analysed media, the two hashtags featured here are not necessarily mutually exclusive. An ultrasound may end up being the sole image of record of an unborn child, and could potentially be used as part of a grieving process as well as a more celebratory announcement (for more discussion of social media and parental grief, see af Segerstad & Kasperowski, 2015).

All Instagram metadata and media captured and analysed were completely public according to Instagram’s platform settings. However, we are mindful that absolute public/private distinctions at the level of code are insufficient to determine user intent; rather, following Markham and Buchanan (2012) we were mindful that technically public media may nevertheless not have been shared with a wide audience in mind. When Instagram was initially released, it was only available to iPhone users, only accessible on mobile devices and was only navigable via the Instagram app itself. Over time, the app has changed significantly, adding a version for mobile devices using the Android operating system, adding the means to view public Instagram media on the web, adding the ability to embed specific Instagram images in other websites, altering various other parameters of accessibility and notably being purchased by Facebook. In this shifting terrain, even if Instagram images were technically public years ago, the experience of using the app may have felt largely private. Over time, the changes to the platform have meant it is far easier to surface technically public Instagram media on mobiles, the traditional web or via many third-party apps and interfaces. Given this shifting experience of privacy, we have elected to avoid including specific examples of Instagram media in this published form, relying instead on textual description.

To collect the metadata and Instagram media for our investigation, we used scripts to query the Instagram API on a recurring basis, rather than standalone collections and snapshots, to note those Instagram images and videos published with the #ultrasound or #funeral hashtag for three months, from March to May 2014. We collated the metadata for these three months to gain a quantitative overview of the media generated, establishing the frequency and size of each type of image. For this article, we are focusing on the qualitative (boyd and Crawford, 2012) aspects of these data. Approximately a fortnight after the initial posting of the media, we selected a 48-hour period (Monday 10 and Tuesday 11 March) and temporarily downloaded the images and videos available from that period for closer examination. These media items were individually coded to surface common elements within the two collections, and across them. The categories used were not mutually exclusive. In the first instance we focused on the visual media, but where it was helpful in understanding the context or intent of the post, the captions and comments were read to ensure accurate coding of the images and videos. Referring back to captions helped to confirm intertextual content making use of images drawn from other sources, such as screencaps from film and television. Notably, in the period of time between downloading the metadata about Instagram media and actually capturing the media items themselves, a number of items were no longer available, and thus not available for coding. The two possible reasons for this are that either the media item was deleted or the account posting that image was made private (Instagram does not distinguish between these two states when informing a user that a media item is no longer available).

At the time we captured the data there were only 200 million Instagram users, which is far from representative of all users online or using mobile devices. The platform is
particularly popular with younger people and simply by virtue of using a mobile device, users must be of a particular level of economic affluence. Similarly, using English language hashtags has necessarily limited the pool of Instagram users to primarily English-speaking. There is likely a much wider range of culturally and linguistically diverse practices around both ultrasounds and funeral images on Instagram than is represented in these collections: global experiences of funerals and other rituals of memorialisation and death might treat them not as necessarily solemn events but as celebrations (see, e.g., the Ghanaian funerals in Light, 2014). Similarly, the visibility and presentation of the deceased may vary drastically between cultures, for instance, while the ultrasound process is not a universal aspect of pregnancy. Our collections are also necessarily limited to material that was technically public; material from private Instagram accounts, or from public accounts but shared with limited audiences using Instagram’s Direct messaging function, have not been collected for both privacy and technical reasons. With those limitations in mind, the qualitative snapshots of the #ultrasound and #funeral hashtags detailed below nevertheless reveal a range of important practices, including a wide range of approaches to framing images both visually and textually.

Visualising identity pre-birth: #ultrasound

After refining our approach to focus exclusively on the #ultrasound hashtag as a means of investigating the way babies are visualised on social media prior to birth we tracked the hashtag for three months in 2014, with videos making up just under 4% of the corpus with the remainder still visual images (see Table 1).

We examined in detail the media posted within a 48-hour period beginning on the second Monday of each month, with the results here focusing exclusively on the 48 hours in March 2014. We elected this period of time to try and capture the range of hours where it was Monday anywhere in the world (that is, across different international time zones). We presumed that ultrasounds were more likely to take place on weekdays. The resulting collection included 289 images and 7 video files with the #ultrasound hashtag in their caption which were publicly shared by Instagram users (outlined in Table 2).

The vast majority of images in the ultrasound corpus featured, usually exclusively, foetal sonograms which appear to be either camera phone images taken of the screen during the ultrasound process, a higher quality version where a digital copy of a sonogram was uploaded itself or, in a few cases, photographs taken of the physical print-outs of sonogram images (there were typically the lowest quality images, and in some cases quite blurred). Twenty-three of these images showed three-dimensional sonograms which often appear to reveal a more recognisable face or form. While this paper does not seek to enter into legal, moral or religious debates about when personhood occurs, it is nevertheless notable that for the vast majority of sonograms in the collection the in-image annotations, captions and

|            | Images | Videos | Overall media |
|------------|--------|--------|---------------|
| March      | 3468   | 151    | 3619          |
| April      | 3847   | 128    | 3975          |
| May        | 3575   | 151    | 3726          |
| Three-month totals | 10,890 | 430    | 11,320        |

Table 1. #ultrasound tagged media on Instagram, 2014.
comments refer to the sonogram as showing a baby, child or similarly representative nickname (e.g., ‘our little peanut’). Notably, this reaction to foetal sonograms long predates the emergence of social media (Mitchell, 2001).

When ultrasound scans take place, the screen showing the details of the scan usually displays a range of information about the person being scanned, such as their full name, date of birth, the location of the scan, sometimes the estimated due date of the baby and so forth. This information is personally identifiable metadata in that it directly refers to and identifies the individual being scanned. 66% (145) of sonogram images were presented in such a way that the image was either cropped to avoid showing the embedded ultrasound metadata, or the image had been blurred or manipulated to obscure this information. Conversely, 76 images (34% of the sonograms) did clearly show personally identifiable information about the person being scanned and about the foetus. In the context of the real-name web and the persistence of personal data outlined above, the quite possibly accidental sharing of this personally identifiable information may be quite significant, possibly allowing the data mining activities of social media platforms to identify new potential users even before they are born (a point explored below). With the question of privacy in mind, it is important to note that in the two weeks between capturing the metadata about Instagram media, and returning to analyse the visual media itself, 19 images had been deleted or made private, possibly indicating the Instagram users rethinking sharing the ultrasound image publicly.

Another 45 images were multi-frame collages or professionally constructed photographs featuring the ultrasound photos, usually situating the image in the family unit. For example, one image depicted a couple holding each end of an iPhone which displayed the ultrasound on its screen, while another was a nine-panel image showing the story of how the couple came to meet and become parents, with the sonogram as the central image. These images more actively framed the ultrasound experience as part of a more explicit story or journey, a genre similar to other forms of professional pregnancy photography.

Twenty-two images depicted the social experiences surrounding an ultrasound. These included images of ultrasound booking forms, screen captures of Facebook profile updates indicating excitement about a scan the next day and images of women lying on the ultrasound table with the scan taking place (clearly photographed by someone else). All of the selfies (self-portraits) in the #ultrasound corpus depicted social experiences relating to the ultrasound process. Seven selfies featured the expectant mother alone, with a caption

| Table 2. #ultrasound tagged images on Instagram, 10–11 March 2014. |
|---------------------------------------------------------------|
| Total number of Instagram media items | 295 |
| Items deleted or made private within a fortnight | 19 |
| Sonograms | 221 |
| Sonogram without personally identifiable metadata | 145 (66% of sonograms) |
| Sonograms with personally identifiable metadata | 76 (34% of sonograms) |
| Collages/Professional Photos | 45 |
| Social experience of sonogram | 22 |
| Selfie | 14 |
| Historical sonogram | 4 |
| Sonogram humour | 4 |
| Other medical ultrasound (not foetal sonogram) | 22 |
| Advertising | 4 |
| Irrelevant | 7 |
conveying excitement, anxiety or a mixture of both either the night before or on the jour-
ney to have an ultrasound. Another six selfies featured what appeared to be expectant
couples and in one case a woman looking excited with her mother. The remaining selfie
was of a mother with her young child, excitedly about to drive to have an ultrasound. In
contrast to the sonograms, these images far more explicitly capture the emotional journey
of the Instagram user, rather than visualising the foetus, raising far fewer purposeful or
accidental privacy risks.

Of the 289 images, 22 were non-foetal ultrasounds, showing various medical pro-
cedures that required ultrasound scans that were not related to pregnancy, including
one ultrasound scan being performed on a dog. Four were advertising, either promoting
baby clothes or different types of maternity wear. The most unexpected images were the
four depicting ultrasound humour, which featured photoshopped ultrasound images
altered to include either a Starbucks coffee cup (showing something akin to the foetus
drinking coffee), a foetus holding a wad of cash or one image featuring a foetus with over-
sized male genitalia. The captions on these images all suggested these were intended as
jokes and, as far as it was possible to ascertain, none of the altered sonograms appeared
to feature the offspring of the users sharing the images. Finally, seven images with the
ultrasound hashtag had no discernible connection to ultrasounds or pregnancy in any
comprehensible way. These final images tagged with #ultrasound highlight some of the
diverse practices present on the Instagram platform, where humour and commerce inter-
sect with personal photographic expression (Abidin, 2014; Marwick, 2015).

Visualising identity post-death: #funeral

Instagram media with the hashtag #funeral were tracked for the same three months as
#ultrasound, producing a larger overall corpus of 16,497 items (see Table 3). The pro-
portion of videos in the #funeral corpus was identical to the proportion of videos in the
#ultrasound collection (which might also demonstrate API access/limiting more than
Instagram user practices).

As with #ultrasound, we did a qualitative analysis of a 48-hour period beginning on
second Monday of each month, with the results here focusing exclusively on the 48
hours in March 2014, on which users publicly shared 396 images and 9 videos with the
#funeral hashtag in their caption (outlined in Table 4).

Flower arrangements, wreathes and typical funeral icons constituted a significant pro-
portion of the Instagram funeral media, consistent with more mainstream Western funeral
visualisation: such funereal imagery alone, without any people in shot, appeared in over
14% of the corpus. Funerals also extended beyond the human: there were several funeral
images related to pets (including videos of goldfish being flushed down toilets). While
smaller in number, there were still a range of humorous and ironic images, including

Table 3. #funeral tagged media on Instagram, 2014.

|        | Images | Videos | Overall media |
|--------|--------|--------|---------------|
| March  | 5375   | 214    | 5589          |
| April  | 5429   | 220    | 5649          |
| May    | 5059   | 200    | 5259          |
| 3-month totals: | 15,863 | 634    | 16,497        |
those explicitly related to death and funerals (e.g., memes suggesting variations on ‘at my funeral, it would be funny if …’ – eight of which featured the same image explicitly referencing Doctor Who), and motivational images (e.g., ‘a funeral for my fat’) emphasising funeral as a farewell rather than death. The variable references signified by ‘funeral’ also contributed to numerous media which, while relevant to a ‘funeral’, were not about funerals in the sense of our study: six images directly referenced Canadian band Arcade Fire and their debut album Funeral, while similar references were made to musical acts Band of Horses and Funeral (a Norwegian band also part of a ‘funeral doom’ metal genre). This range of visual content and styles highlights the polysemic nature of funeral as a hashtag and signifier on Instagram, linking the platform with expressions regarding personal grief, humour, commerce, popular culture and exercise.

Nearly half of the images involved the social experience of funerals, including selfies. These images depicted a range of emotions: the funeral selfies, for instance, included sad or forlorn poses, with the person typically clad in black, presumably immediately before or after a funeral, but there was also a high proportion of photographs featuring individuals or groups clearly dressed for a funeral, but smiling – or at least not appearing outwardly melancholic. This includes groups at wakes and gatherings post-service, images taken on the way to funerals and pre-funeral shots of the author in their chosen attire. For a Western framing of a funeral as a solemn event (or associated norms of ‘appropriate’ responses, including what is suitable for sharing on social media), such practices appear incongruent with the setting, but given that many selfies are about dialoguing with your imagined audience, not just capturing the physical setting, smiling may convey that the selfie-taker is okay themselves despite the sombre setting (Senft & Baym, 2015). Framed around the Instagram users themselves, #funeral grief communicates a loss with that user’s followers rather than explicitly adding to a collective digital memorial. Further contextual analysis will be needed to delve deeper into these possibilities. Such future work might also compare how other grief- and death-related hashtags may denote other events and responses beyond the memorialisation of a funeral (and how other cultural experiences of funerals and death are depicted when accompanied by non-English hashtags). However, it is clear that #funeral is a multivalent hashtag and is utilised to convey a variety of meanings, consistent with related research (Gibbs et al., 2015).

The high number of irrelevant media (94, 25% of the corpus) reflects the flexibility of the ‘funeral’ marker, and thus a fairly tight coding process: within the ‘irrelevant’ code are

| Table 4. #funeral tagged images on Instagram, 10–11 March 2014. |
|---------------------------------------------------------------|
| Total number of Instagram media items | 405 |
| Items deleted or made private within a fortnight | 35 |
| Funereal images – flowers, wreaths, without people | 54 |
| Selfie | 81 |
| Social experience of funerals (incl. posed, group photos and funeral dress choices) | 164 |
| Collages/curated images | 33 |
| Advertising | 11 |
| Historical imagery | 12 (incl. 1 #tbt) |
| Non-human funerals | 6 |
| Funeral humour | 16 |
| Visible deceased | 7 (1 person; 6 pets) |
| Visible identifiers (name/photo) of deceased in image | 21 |
| Irrelevant | 94* |
media reflecting various fandoms and fan practices, including fanfic – through visual media – involving members of One Direction, as well as references to popular culture where screencaps highlight on-screen funerals (e.g., *Hawaii Five-0*) or scenes from cemeteries (e.g., *Bones*). Advertising, meanwhile, remains on-topic for the most part, with florists, funeral homes and plots present.

Where the #funeral and #ultrasound media diverge most significantly is in their presentation of the deceased and the unborn, respectively. Reflecting perhaps the specificity of #ultrasound – its description of a particular process with a common visual output – the high proportion of sonograms within that corpus is not unexpected (and comparing #ultrasound with other pregnancy-related hashtags may offer a greater diversity of practices and content). In comparison, the subject of the funeral is rarely present within #funeral imagery. The deceased appeared – *in situ* at the service – only once within the analysed corpus, which may be both a reflection of particular cultural norms and of the much broader scope of potential experiences and content that could be relevant to the #funeral hashtag. Other visible identifiers within the visual media included headstones, programmes from services, photographs (both archival and within the service context, such as images of programmes), and notices on wreathes and flowers. However, more information about the deceased was included in captions than in images, whether mentioning their name or the personal relationship with the author (father, grandmother and so on). Yet it is clear that on Instagram, grief as depicted through #funeral appears to be about the individual in mourning far more than curating images of the recently deceased.

**Visualising the ends of identity?**

The hashtag contexts of #ultrasound and #funeral serve to provide markers related to the ends of identity – birth and death – featured in our study. While these hashtags explicitly situate the Instagram media examined as moments that directly refer to another person, it is nevertheless the case that the bulk of the images from both collections are social, depicting and communicating that Instagram user’s relationship with the individuals those tags refer to, and what the user wishes to share visually with their Instagram audience, be that family, friends or a much wider circle of followers. Although there were some common content types (memes, advertising and selfies, for instance) across the #ultrasound and #funeral collections, it quickly became apparent that the types of media and ways in which they were framed were very different across the two collections, with funereal images far more about the individual user’s experience, while ultrasound images often presented the initial visualisation of a young person before they are born.

Despite the specific contexts implied by #ultrasound and #funeral, our analysis of visual media featuring these tags on Instagram found that these settings are mutable: the presentation of the unborn and the deceased is accompanied by, and at times overshadowed by, the depiction of social experiences related to these events. As much as the motivation for these media involves others, the choice to capture, to post and to share is that of the active user, as are the framing devices apparent; the depth of feeling within #funeral images, for instance, might be demonstrated through text alongside a photo of floral arrangements from a service, or a group shot of family members assembled at the wake. The visual focus and specificity of the Instagram platform affords purely visual
responses, such as representing loss by posting a plain black square, devoid of any other visual content, and explaining their grief in the accompanying caption (Gibbs et al., 2015).

Strong emotions are also clearly present within the #ultrasound dataset: while the sonogram provides a visual representation of a new life, it is shared on Instagram with the emotions of soon-to-be parents and families, of excitement and nervousness. These are made explicit through particular visual approaches to presenting #ultrasound media on Instagram, beyond the simple replication of the sonogram itself to collages and displays, which depict journeys to and from ultrasound sessions and present the unborn as part of an ongoing and unfolding narrative involving, for instance, the user and their partner. Such approaches ground #ultrasound media as and within social experiences, or ‘rite of pregnancy’ (Lupton, 2013).

The #funeral media also demonstrates how mourning and discussion of death on Instagram differs from other platforms. Whereas Facebook and MySpace mourning can take place in a bespoke location – a profile or page – organised to collate mourning about a specific individual (Kohn et al., 2012; Marwick & Ellison, 2012; Pennington, 2014), mourning on Instagram does not have that option, and so is repeatedly framed around the personal. Mourning takes place within the context of the social media user’s content, and is often about their experiences of loss rather than explicitly eulogising the deceased individual. Thus while very few selfies were taken at a funeral (and avoiding the social stigma that it entails, see Miltner & Baym, 2015), instead, selfies and other personal photography depicted various stages of the funeral experience: preparing in advance for the service (from drafting eulogies to choosing an outfit), pre-service experiences (how they are addressed, selfies from the car on the way to the service) and post-service media as the individual – or groups of friends and family – reflect at wakes or at home. Conflicting emotions may be present here: expressing grief and loss while also commenting upon how good the subject looks (including regret for why they are wearing suits or black dresses), or joy at seeing family members again. Here, the users have chosen to share their experience of a relatively extraordinary event and which, by this nature, may warrant recording as something different or unusual as well as being personally significant. There may also be a negotiation taking place regarding what is and is not seen as appropriate or suitable for sharing on social media, by the user and their networks, which is part of a much wider discussion about the cultures and user behaviours on social media (see, e.g., Light, 2014, p. 132). Instagram does not afford new spaces of collective mourning but rather serves to communicate individual users’ experiences of loss and grief to their existing followers.

The self – of the author, not of the deceased – is a more common feature for the #funeral media than for #ultrasound; and by extension, approaches such as collages are less frequent parts of the #funeral data set. Commemorating the deceased through visual media, mixing together different images and/or overlaying text, is not common within the media analysed here. However, it may also be that this approach is not used within the funeral context or using this particular hashtag, and occurs at different points in the grieving process, employing other markers as the case may be. The funeral is a specific event related to death, experienced by others rather than just being a reflection upon a life (at the initial planning stage for this study, we considered tracking additional tags such as #vale as well as #RIP, but this term also has multiple meanings beyond our particular context, particularly for Spanish-language users).
One of the framing questions guiding the ends of identity approach has been in relation to privacy both of the user and of the people they are posting about, whether that sharing is intentional or accidental. For the funeral collection, comparatively few individuals were named (more often mentioned in terms of their relationship to the Instagram user), and in those instances where a name was clear, it did not appear that revelation would or could do any real harm – although this is not to say that there are no inadvertent revelations for users seeing that content, such as finding out about a death through this media. In contrast, with more than one-third of the sonograms revealing detailed personal information about the person being scanned, and the foetus, this personally identifiable information may form some of the earliest data about that young person, online even before they are born, consistent with concerns raised by Leaver (2015b). It may have been the case that since a lot of this information was inside the image (i.e., text as part of the image, not just in the textual caption) a user may have presumed this was not searchable. However, any number of algorithms can easily read clear text from an image and given the ongoing shifts in the way Instagram makes images accessible and searchable it is reasonable to presume that in the near future this sort of information, too, will be searchable by users. It is likely already searchable by the Facebook corporation, Instagram’s owners. The ever-changing nature of platforms like Instagram, the strategic lessening of privacy by their parent company Facebook (boyd, 2008; boyd & Hargittai, 2010; van Dijck, 2013) and the uncertainty with which corporations will manage personal information make this early privacy question an important one: this includes the use of scannable data to target content and advertising towards the posting user based on their aggregated social media activity, within the broader context of the deliberate and the background aggregation, tracking, quantification and analytics of user activity. If a corporately owned data trail with a person’s date of birth, location and mother’s details exists before they are born, then there are significant privacy implications for the user and for the unborn child. While this study has focused solely on Instagram, content posted here is not restricted to this platform: users may automatically cross-post media to other platforms, including Facebook and Twitter, offering different audiences access to this content and further complicating ideas of context collapse with potentially unexpected impacts of posting information about pregnancy or death. Connections made across the extended social media ecology also have implications for the user, as their identifiable information may vary on different platforms, such as using pseudonyms on Instagram and real names on Facebook; while this information is beyond the scope of the analysis for this paper, cultural practices about the use of names and identities are an important consideration for further research.

What is ultimately apparent from both data sets is that, while there are privacy concerns relating to ultrasounds in particular for the Instagram users (Leaver, 2015b), the images being shared are first and foremost acts of communication. Mourning on Instagram is not collected in a specific space about the person mourned. Instagram users are visually documenting their emotional reactions to personally significant situations and life events with the explicit intention of sharing these with family, friends and followers. It is not just the context of excited parents or the context of a funeral, but the specific social context of Instagram, too, that matters. The ‘platform vernacular’ of Instagram both builds upon material contexts, and also adds specific layers of meaning and depth via the digital communication and sharing process (Gibbs et al., 2015). Birth and death will always be momentous events in people’s lives, and they will be experienced and expressed in
different ways, including on social media. The circulation of the ends of identity on Instagram shows that new patterns of social media communication are emerging which express these moments in new ways, with new emerging vernaculars which differ across various platforms (and differ across the same platforms as well). Instagram as a platform affords new spaces and new types of sharing, and thus facilitates new permutations of beginning and end of life communication practices.

**Conclusion**

Mapping #ultrasound and #funeral tagged media on Instagram opens one avenue for understanding how birth and death are shared and discussed on visual social media. Consistent with emerging research (Leaver, 2015b; Lupton, 2013), whilst sharing moments of great joy, ultrasounds on Instagram are nevertheless also initiating a young person’s social media footprint before they are even born, normalising a culture of surveillance in the context of a web driven by singular identities (van Dijck, 2013; van Zoonen, 2013). Ultrasound sharing is also a very social experience, curating moments of great joy. While platforms like Facebook offer specific memorialisation processes in addition to individual expressions of grief (Kohn et al., 2012; Marwick & Ellison, 2012; Pennington, 2014), mourning on Instagram is not collated in a single bespoke online space. Moreover, the specificities of Instagram reveal approaches to mourning, at least within the funeral context, that are far more about articulating the mourner’s emotional state in their own social media spaces rather than eulogising or attempting to shape the deceased person’s online legacy. Different social media platforms thus offer different affordances of emerging norms of terms of mourning; on Instagram these are more personal expressions rather than spaces of collective commemoration. The platform vernacular of Instagram facilitates new beginning and end of life practices; the persistent nature of social media data leaves issues about the legacies of these practices, but the common feature at both ends of identity is the centrality of sharing and communicating significant social experiences. This research is limited by the focus on particular events within the wider context of birth and death (and the cultural specificities of English-language hashtags), and by the size of the sample coded. The research can be expanded in a number of ways, including future work on a larger sample and re-sampling the full metadata annually to note changes in quantitative trends and in practices of visualising and sharing information and experiences associated with birth and death. Comparative work on other visual social media would also reveal similarities and specific differences across platforms.

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