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Celebrities in the Mass and Internet Media and Social Network Structures:
A Comparison with Public Intellectuals

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Abstract

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The current research compares celebrities to public intellectuals, dead or alive, in their amounts of traditional and new media coverage and in their agency in online social discourse networks. Previous research studied only public intellectuals on these variables. A comprehensive theory is presented that brings together media-related processes about celebrities and public intellectuals into a coherent framework and expands the theory to also include online discussion content variables. WordLink software is used to index semantic-network structures, with additional content variables examined. Eleven hypotheses are derived from the broadly-based theory. The hypotheses are supported by the data. Highlights include: discussion content about celebrities is more entropic, more focused on peripheral content, more socio-emotional, and the discussants more narcissistic. They also focus on less abstract concepts than do those discussing public intellectuals. Although celebrities receive more media coverage than public intellectuals, the latter have twice the size of online social networks associated with them. The glow of celebrities produced and managed as the output of mega-media organizations fades relatively quickly after their death, while the more focused conceptual beams of public intellectuals, even after their corporeal passing, are associated with activation of more developed social networks in the time-suspension of cyberspace.

Introduction

The familiar stranger is not a new concept (Gitlin, 2002). Such figures date back at least to the era of epic poetry. Today, however, the frequency of the flow of familiar strangers through our society, and the range of characters, mark our era as a period of well-nigh unlimited media stories. To a great extent, these stories are populated by figures we call celebrities. One goal of this paper is to study the extent to which various media, the traditional mass media and the internet-based new media, present celebrities. We compare this to the evidence for public intellectuals on the same criteria using the same methods (Danowski & Park, forthcoming). Simply judging from the relatively extreme behaviors of fans of celebrities, and from the number of celebrity-oriented fan groups, we might expect more overall media presence for celebrities. At the same time, if entertainment and informational content in the media are becoming less distinguishable, as a hybridized infotainment format grows (see Baum, 2003; Brants & Neijens, 1998), we may expect less marked differences between celebrities and public intellectuals.

A second goal is to advance theory about online discussion message content in terms of differences in semantic networks and other content variables including entropy, abstractness, socio-emotional orientation, central/peripheral focus, and narcissism. We also examine the agency of celebrities and public intellectuals in social network formation – their sociomorphic power -- among active audience members who enter internet discussion forums and mention their names. In particular, thread length, defined

as the number of posted replies to prior posts, is our measure of social network activation.

This explanation of threads is consistent with our approach:

A threaded discussion is an electronic discussion (such as one via e-mail, e-mail list, bulletin board, newsgroup, or Internet forum) in which the software aids the user by visually grouping messages. Messages are usually grouped visually in a hierarchy by topic. A set of messages grouped in this way is called a **topic thread** or simply "thread". A discussion forum, e-mail client or news client is said to have "threaded topics" if it groups messages on the same topic together for easy reading in this manner.

The advantage of hierarchically threaded views is that they allow the reader to appreciate quickly the overall structure of a conversation: specifically who is replying to whom. As such it is most useful in situation with extended conversations or debates, such as newsgroups: indeed, for really complex debate, it quickly becomes impossible to follow the argument without some sort of hierarchical threading system in place (Wikipedia, 2008, ¶ 1-3).

A celebrity is defined as persona who frequently appears in the media based on behaviors and attributes that are largely unrelated to the core work that typically was the root of their eventual celebrity status. Much celebrity media coverage, rather than focusing on that core work, concerns romantic relationships, family matters, addictions, anti-social and pro-social behaviors, material possessions, styles of appearance, and communication about topics other than their core work. Public intellectuals are defined

by Posner as "intellectuals who opine to an educated public on questions of or inflected by a political or ideological concern" (2001, p. 2). They play authoritative roles in political and social affairs.

The public intellectual has been a recent and ongoing subject of controversy. Public intellectuals are routinely characterized as in a supposed decline (see Jacoby, 1987; Posner, 2001). This has been blamed in part on changes in the media and on the celebrity-oriented tendencies of the entertainment and news media today. It is possible that public intellectuals are being crowded out of a media system that focuses more on celebrities than it does on the kinds of discussions of social issues that are associated with public intellectuals.

What makes celebrities potential rivals for public intellectuals is the basic fact that both are types of 'familiar strangers,' conveyed to audiences by means of the media. Some commentators have taken frank notice of the similarities between public intellectuals and celebrities (e.g. Ross, 1989). They observe how celebrity has become (or has perhaps always been) a dimension of intellectual work because of the centrality of the media to both concepts. Of particular importance here is the basic notion that public intellectuals and celebrities maintain their places as public figures because of the mass media and the Internet.

Because in traditional mass media there is fixed time and space for presentation of media content, to the extent there is increasing celebrity coverage, there is arguably decreasing attention to public intellectuals and associated issues. Time and space tradeoffs must be made in the types of personae occupying those slots. With the internet media, however, because time floats freely (Danowski, 1993b) and space appears

essentially unlimited with the expansion of the number of web pages according to a power law distribution (Barabasi, Albert, & Jeong, 2000), there is no necessary trade-off between celebrity and public intellectual content availability. Cyberspace content is not subject as much to traditional media's institutional constraints. It is user interest that drives production of content there. Searching the web and participating in discussions remains largely an individually-motivated action, although influenced by and influencing interpersonal networks, so that growth in celebrity content does not preclude growth of public intellectual content as long as there are individuals interested enough to seek and find relevant content on the web.

Sociomorphic power

Public personae vary in sociomorphism, the extent to which social and interpersonal networks emerge associated with them. Such networks produce coordinated management of meaning (Cronen, Chen, & Pearce, 1988). This social focus is in contrast to Marshall (1997) who sees the celebrity as the entity that contains audience members' individual subjectivities and identity formation, consistent with Foucault's (2005) identity formation concepts and Feilitzen, & Linne's (1975) examination of individuals' identification with celebrity personae, which fosters positive affect and affectation (Basil, 1996; Fraser, & Brown, 2002; Brown & Fraser, 2004; 2007).

We, on the other hand, believe that when individuals activate to communicate with one another about a celebrity this subjectivity is transformed to an overt intersubjectivity (Berger & Luckman, 1967) that can be objectively observed in message construction, in distribution, and in response patterns. In this way, subjectivity is fundamentally attached to social processes.

Social control power: Schickel (1984) argues that it is important to study the motives of institutions putting across ideas of various kinds: political, social, aesthetic, and moral using public persons as symbols of ideas or as spokespersons or models for them. In capitalist societies the industrial production of celebrities by popular culture machines is much more extensive and intensive than governmental production of them (Gamson, 1994; Marshall, 1997; Braudy, 1997; Adorno & Bernstein, 2001). Messages for social control (Beniger, 1986) produced by private sector organizations dominate in capitalistic societies, although there clearly numerous examples of governmental media campaigns aimed at social control (Rogers, Dearing, & Chang, 1991; Brown, & Basil, 1995; Rice & Atkin, 2001; Brown, Basil, & Bocarnea, 2003a).

Popular culture machines: The media industry with its multi-channel manifolds is more likely to strategically manage celebrity emergence and maintenance because wider audience interest in such celebrities provides larger revenue streams than does interest in public intellectuals and their ideas. Accordingly, there is considerable marketing and advertising research on celebrity effects on audiences (Agrawal & Kamakura, 1995; Knott & St. James, 2004; Till, & Busler, 1998; Tripp, Jensen, & Carlson, 1994; Erdogan, Baker, & Tagg, 2001; Van der Waldt, Schleritzko, & Van Zyl, 2007). Celebrities are the strong attractors that gather audiences in for measurement and sale for media owners' returns on investments.

Public intellectuals are primarily positioned in news and public affairs programming, usually sources of positive cash flow only in local markets. At the national network level in recent years this kind of news programming and its associated organizational structure is generally a sink of negative cash flow. As news organizations

are downsized because of cable competition and increasing audience interests in celebrities, the negative cash flow linked with the programming locus of public intellectuals, reduces their footing in broadcast media.

The fixed time and space for media content in traditional mass media makes for a zero-sum game. To the extent celebrity coverage increases, there is decreasing attention to public intellectuals and associated issues. With the internet media, however, because time floats freely (Danowski, 1993b) and space is essentially unlimited with the expansion of the number of web pages according to a power law function (Barabasi, Albert, & Jeong, 2000), there is no necessary trade-off between availability of celebrity and public intellectual content. In cyberspace it is user interest that drives production of content. There, growth in celebrity content does not preclude growth of public intellectual content as long as there are individuals or organizations interested enough to seek, find, and produce that content on the web.

Media Personae Dimensions

In an effort to fix the debate about public intellectuals (and their ostensible decline, or ascent) in a media context, and to provide more theoretical depth on the role of media figures more broadly, we consider public intellectuals and celebrities on ten key dimensions: 1) fictional to real, 2) socio-emotional to cognitive, 3) negative to positive valence, 4) para-social relationships, 5) audience uses and gratifications, 6) media entropy/negentropy management processes, 7) narcissism 8) network structures among posters 9) Elaboration Likelihood Model, and 10) time.

1) Fictional to real: Public Intellectuals and celebrities often populate the largely "real" end of the personae continuum (Michael Jordan, Pope John Paul II) while others

represent the "fictional" pole (Mickey Mouse, Homer Simpson, Rocky Balboa). Some personae are constructed near the middle where their fictional enactments are given prominence even though the individuals are at the same time real people (Eminem, Rock Hudson, and John Wayne).

Although we can point to examples along the continuum between fictional and real media personae, there is an underlying imaginary quality that does not fully disappear from the real end. Media projections of personae are social constructions of "reality" (Berger & Luckman, 1967) within the basic system of media image production (Boorstin, 1964). The media present a simulated reality, what Baudrillard (1994) calls a "simulacrum." Media are limited to representing real persons' complex sets of slices of life through construction processes such as selective attention, filtering, assimilation, and framing. This necessary detachment from non-mediated reality creates symbols that have full meaning only within the media system itself. Nevertheless, to a great extent these celebrities and public intellectuals are figures we take as 'real.'

- 2) Concrete Socio-Emotional to Abstract Cognitive Constructions: Media personae also vary on a continuum ranging from concrete socio-emotional expressiveness to abstract cognitive conceptualizations. Media personae who anchor the socio-emotional pole are exemplified by Elvis, Paris Hilton, and Barry White, while examples of those who anchor the conceptual end are Karl Marx, Stanley Fish, and Oliver Wendell Holmes. Nearer the middle are personae such as the Dalhi Lama, Charlton Heston, and Jane Fonda.
- 3) Social valence: Reflecting the dominant societal valuation of personae is social valence. The simplest expression of the continuum end points is "good" and "bad."

(Osgood, Suci, & Tannenbaum, 1957). Also aligned are bipolar opposites such as attractive to aversive, or positive to negative. Though the labels of the evaluative dimension are not consensual, their essence is widely established in discursive constructions. In Western culture, the negative pole of this continuum is exemplified by such personae as the Britney Spears of 2007-2008, Mahmoud Ahmadinejad, and Charles Manson, while the positive end is represented by Mother Teresa, and Florence Nightingale.

4) Levels of para-social relationships: "Para-social interaction (PSI)," (Horton & Wohl, 1956; Ruben, Perce, & Powers (1984), Rubin, Perce & Powers, 1985, Cathcart, 1986; Rubin & McHugh, 1987; Rubin & Perce, 1987; Giles, 2000; Bocarnea & Brown, 2007) had originally been cast in terms of a one-way virtual dyadic relationship constructed by the individual audience member with the media personae. It is useful to expand this construct to social units larger than dyads. Giles (2002) responded to Horton and Wohl's (1956) call for PSI to be incorporated into "the matrix of usual social activity" (p. 225) in identifying four qualities: (a) number of persons involved, (b) their physical distance, (c) social conventions, and (d) potential relationships between the interactants.

Extending Giles' notions, we conceptualize networks of para-social interaction within levels and across levels of analysis. In addition to dyadic para-social relationships, some people also frequently share with others semantically-elaborated messages about their relationships with media personae. These social units range from triads, through small groups of 10 or 12 people, to larger communities such as fan clubs (Jenkins, 1992) or online communities (Jones, 1998).

- 5) Uses & gratifications: While for the lonely, para-social interaction may compensate for feelings of social loss, for others PSI may facilitate social interactions, such as when an anxious young man talking with an attractive girl thinks of his parasocial mentor providing him with advice on effective small talk. Or, less intensive, the media persona serves a conversational utility (Atkin, 1972) providing social capital. For some celebrities conversational utility and perhaps other gratifications can be intensive and of long duration (Brown, Basil, & Bocarnea, 2003b), exemplified by the years of wide-spread focus on the death of Princess Diana. Given our attention to media personae as the focus of online discussions, research on the uses of gratifications of internet use is also particularly relevant (for reviews see: Althaus & Tewksbury, 2000, LaRose, Mastro, & Eastin, 2001; Johnson & Kaye, 2003; LaRose & Eastin, 2004).
- 6) Media distribution processes: Broadcast mass media distribute messages widely without a primary concern for its routing paths through social networks, so they glow information like a light bulb, filling the available time with a uniform glow that fills the media space. In contrast, online media primarily beam information through social networks like a narrow, focused laser light source would beam through a complex fiberoptic network. People actively switch information beams through their social networks in a viral, asynchronous manner (Danowski, 1993).

Glow media are brighter as there is more time-synchronized message distribution across the audience. As well, more abstract information produces lesser glow. In addition, audience size and interlocking network structures contribute to greater glow. Because celebrities are more likely manufactured and managed by mass media machines we expect that:

H1: Celebrities have a greater presence in traditional mass media than do public intellectuals.

Negentropy, information and social networks: The energy that flows through the media representation system can be usefully conceptualized in thermodynamic terms (Danowski, 1974; 1975). In social contexts, entropy is uncertainty. The more diverse the information about a topic, the greater the entropy. Thermodynamic coolness—negative entropy (negentropy) — has been conceptualized as isomorphic with information (Shannon & Weaver, 1950). Messages that reduce uncertainty rather than increase it are negentropic. In this sense, the macro-level media system can be metaphorically considered a social container with a semi-permeable membrane. The more that heat (entropy) is applied to the container, the greater the rate of "collisions" between constituent social elements, thus producing more interlocking social networks in which link distribution is more equal and as actual links approach total possible links.

Processing entropy may not only influence a social unit's information production and external distribution, it may also change its internal system by increasing structural constraints in information flow inside it. Such internal cooling through structural change is a process of producing less dense networks that span more diverse regions within the system. For example, an individual develops a more parsimonious understanding, having fewer ideational units explaining wider ranges of experiences. This more coherent world view calms the internal cognitive/affective system.

Coverage of a media persona that is more conceptually-oriented will change entropy more effectively than socio-emotional coverage. Public intellectuals are particularly likely to function as cooling sources presenting negentropic information through a particular structured point of view. They can also be heating sources when they raise questions about the status quo. On the other hand, mass media generally produce more entropic messages about celebrities. The 'celebrity' semiotic sign is an ambiguous one (Marshall, 1997). While some are celebrated for achievements, others are ridiculed and derided as hypocritical or disingenuous (Marshall, 1997). Such ambiguity increases the social exchange value, the conversational utility, of celebrity.

Due to celebrities' mass appeal, there is less media differentiation and specialization in their coverage compared to that of public intellectuals. The media distribute relatively diverse information about celebrities: about their romances and other relationships, their current activities, their troubles, their addictions, their other problems, their possessions, and other topics. At the same time, they use a greater variety of media venues to deliver subsets of this information, perhaps to stimulate ongoing audience involvement as multiple media delivery appears to activate audiences for advertisers (Agrawal & Kamakura, 1995). What results is therefore more entropic information about these heavily-marketed celebrities.

Networks among audience members form differently based on whether the media messages are primarily more abstract or more socio-emotional. Processing of abstract content requires more negentropic social relations, networks that are more structured (less connected), where contactees are not contacts of one another except for linking to the central radial node (Laumann, 1993). They bridge more diverse social regions and more structural holes (Burt, 1992) and therefore require more abstract messages. In contrast, socio-emotional entropy can be reduced with less structured, denser social networks. These more interlocking (Laumann, 1973) "bonding" networks (Burt, 1992)

have stronger emotional ties and therefore more socio-emotional expression, cohesion, and social support. On the other hand, "bridging" networks have weaker emotional ties but stronger instrumental informational ties (Granovetter, 1973). As well, bonding networks are more likely to involve multiplex relationships interwoven on a concrete socio-emotional level with a high degree of tacit knowledge, whereas radial/bridging/weak tie networks are more likely to have uniplex relations focused on a particular abstract topic. Because of this specificity and less shared meaning, bridging networks have greater need to explicate knowledge and to negotiate meanings in their attempts at abstract uncertainty reduction.

- H2: Discussions about celebrities in online forums are more entropic than discussions about public intellectuals.
- H3: Social networks about celebrities have stronger socio-emotional ties than social networks about public intellectuals.
- H4: Discussions about celebrities are less abstract than discussions about public intellectuals.
- 7) Narcissism in networks: Lasch (1979) argued that the U.S. has become a "culture of narcissism," stating that the mass media "have made Americans a nation of fans [and] moviegoers...The media give substance to and thus intensify narcissistic dreams of fame and glory, encourage the common man to identify himself with the stars (p. 56)." The narcissist admires and identifies himself with "winners" out of fear of being labeled a loser, seeking to warm him or herself in their reflected glow. Lasch links these processes to erosion of early capitalist values of self-denial, hard work, task-related gratification, and merit-based social achievement, resulting from media moving to attract

larger audiences and from increasingly pervasive bureaucracies exerting increasing social control for their maintenance. He asserts that bureaucracies make life banal for their subjects, thus increasing their attraction to celebrities' media messages.

Narcissism is lower for radial network individuals, who are more other-oriented than self-oriented. Interlocking network individuals use the first person singular pronoun, "I" relatively more than the second personal singular pronoun, "you," an indication of self absorption. The opposite is true in radial/bridging/weak tie networks (Danowski, 1986). As well, in online groups radial individuals were found more likely to greet new users, saying "hi" and "hello" significantly more than interlocking individuals (Danowski, 1986). The same variations may occur offline.

Our approach sees explanatory value in further linking Lasch's critical societal assessment with narcissism of media users and of celebrities. Young and Pinsky (2006) studied samples of celebrities, MBA students, and the general population, administering the valid and reliable Narcissistic Personality Inventory (NPI) (Campbell, 1999; Raskin & Hall, 1979; Raskin & Terry, 1988; and Rose, 2002). They found that celebrities are significantly more narcissistic. Reality television personalities had the highest overall NPI scores, followed by comedians, actors, and musicians. Linking Lasch's cultural characterization with the evidence on individual narcissistic language use, and with Young and Pinksy's work, there is a basis for a mutuality of narcissism between celebrities and audiences.

H5: Individuals discussing celebrities are more narcissistic than those discussing public intellectuals.

8) Network structures among posters: We expect to find more threaded discussions concerning public intellectuals among diverse individuals who do not have strong ties, because their links cover larger regions of the aggregate social network, traversing more structural holes. Connecting these diverse areas requires more negentropic and more abstract message content, the makings of longer message threads. In contrast, those with strong ties online are more likely to be discussing diverse socioemotional matters associated with celebrities. Because their dense, interlocking bonding networks are within a group of similar individuals who communicate mainly with one another and have more tacit knowledge and less elaborated discourse, we expect their threads to be shorter.

H6: Public Intellectuals have longer discussion threads associated with them than do celebrities.

9) Elaboration Likelihood Model (ELM): Petty & Cacioppo's (1981) work leads to expectations that individuals with a high need for cognition and engagement – in our terms: active individuals with radial/bridging/weak tie/instrumental networks -- pay closer attention to the central content of a message, typically its main textual elements. This orientation likely carries over to their online writing about public intellectuals. In contrast, those with a low need for cognition and/or low involvement -interlocking/bonding/strong tie network individuals -- primarily process peripheral message features, how it is rendered and packaged, where the celebrities appeared, how they looked, and in what situation they were in. Such individuals will discuss these peripheral aspects more often in their online posts.

H7: Discussions about public intellectuals focus more on central media message themes while discussions about celebrities focus more on peripheral aspects of media messages.

10) Media personae and time: Although contextual or process time is most often implicit in Communication scholars' calls for more inclusion of time in studies, a different key aspect of time is the chronological state of communication participants. The most fundamental time attribute variable at this level is life or death.

When the celebrity entropy source dies, the present-tense focused mass media quickly reduce their coverage after initial announcement of the death and brief presentations of accomplishments. As a result, the social networks associated with these celebrities accordingly shrink. Nevertheless, we expect celebrities to have a strong afterlife on the web in that celebrity worship by fans can become even stronger after death (Goldman, 1994; Goldman, & Ewalt, 2007).

On the other hand, when public intellectuals die, their abstract ideas are less likely to disappear because abstract notions continue to reduce people's entropy because they more readily link to wider, time-transcendent situations and concepts. The dead public intellectual's presence and associated discussion threads are no different from those of living public intellectuals (Danowski & Park, forthcoming). Radial/bridging/weak tie networks are less space and time bound in their discourses.

H8: Dead public Intellectuals have longer discussion threads than dead celebrities. H9: On the internet, dead celebrities and public intellectuals are more present on web pages than their living counterparts.

H19: Famous dead celebrities have a longer media afterlife than normal dead celebrities.

H11: Dead famous celebrities exceed living famous celebrities in media hits.

Methods

Populations and Samples

The samples of public intellectuals and celebrities were gathered through diverse means. The public intellectuals sample was the same used in our prior study of public intellectuals (Danowski & Park, forthcoming), where we took Posner's (2001) list of public intellectuals, added 55 names to it (resulting in an n of 662), and used a more detailed approach to quantify Google, Google Groups, and Nexis results from 5 years of mass media content.

We also gathered two separate samples of celebrities. One was a randomly selected sample of 350 names taken from lists provided by Marketing Evaluations Inc.'s Q-rating list of the 1,743 most recognized names in the U.S. Q-ratings also provided a list of 156 famous dead celebrities, which we used in its entirety. We found that no names were duplicated in the celebrity and public intellectual samples.

Table 1 shows a sample of the first 30 names on each list in alphabetical order of last name to give the reader a sense of the kinds of individuals on the various lists.

Complete lists are available from the authors. In the case of celebrities, these names include not only Americans, but celebrities known to Americans, such as Australian actor Nicole Kidman. The public intellectuals list is more U.S.-centered.

Insert Table 1 About Here

Marketing Evaluations, Inc.'s (http://www.gscores.com) famous living celebrities come from lists generated by their clients who have contracted to purchase their study. Once all the clients have been accommodated, researchers add up-and-coming celebrities to the list who they feel should be included, as well as performers who have not been measured for a while and whose data they feel should be updated. When asked to define how they determined who are "up and coming celebrities" they stated that this was based on nominations by staff members familiar with the popular culture. These were individuals beginning to receive media attention and buzz and it appeared that this would increase to the point they were established celebrities. The names for Dead Q start in the same way, that is, with lists of dead celebrity names that up-front clients wish to pay for to have their O scores measured. The researchers then add personalities like movie stars and musicians whose body of work is likely to stand the test of time, and will, therefore, continue to have commercial value despite their deaths.

Because our sampling frame was a list of the most famous people in the U.S., there was a danger that our results would be skewed when comparing this list with the list of public intellectuals who are not likely as famous. So, we developed a third comparison group of dead celebrities that did not exclude less famous celebrities (as did the O-ratings list). We generated this group using the Dead People Server (http://dpsinfo.com/dps/), a web-based list of deceased celebrities (both major and minor), and taking their list of 157 celebrities. Unfortunately we could not locate a list of living less famous celebrities, although there is considerable variation apparent on the Q-Score lists in how widely known individuals are.

For these samples of public intellectuals and celebrities, we calculated their:

- mass media presence, based on counts of the total number of hits obtained from searches on Nexis.com, subdivided into broadcast, magazine, and newspaper media;
- web presence, based on an estimate of the total number of Englishlanguage web sites that involve their name based on a regular Google search;
- place in on-line discussions that are accessible through Google Groups

 (http://groups.google.com/), numbering more than 4,000; this is the firstorder network degree, indexed by number of Google Group hits, as well as
 extraction of samples of discussion post content for analysis.¹

Network Measures

First-order network degree (number of hits) for the web was indexed by number of Google hits (web pages) and Google Group hits (posts). Because not all hits are relevant, we estimated percentage of valid hits, ones actually about the person in focus, from he first 100 hits. We choose the first 100 hits because we could not code all of the hits, and 100 would be sufficient for computing a percentage of relevant hits to estimate the total number of such hits. For example, the search for comedian Carrot Top returned hits for Carrot Top Flag Company, Carrot Top Pastries, and Carrot Top Records, none of which is affiliated with the performer. For sportscaster Dick Enberg, Google returned 6,660 hits, which was beyond human coding capabilities of the research team.

¹ Google Groups is a free service from Google where groups of people have discussions about common interests. Internet users can find discussion groups related to their interests and participate in threaded conversations, either through the Google Groups web interface, or by e-mail. They can also start new groups. Google Groups also includes an archive of Usenet newsgroup postings dating back to 1981 and supports reading and posting to Usenet groups. Users can also set up mailing list archives for e-mail lists that are hosted elsewhere.

Examineing the first 100 hits we found that 97 of these hits were about him. So, we multiplied 6,660 by .97 to estimate the total number of actual hits about Dick Enberg at 6.460. It is likely that as one moves closer to the end of the list of hits, there is a decreasing percentage of relevant hits because of Google's page-rank formula. Furthermore, this effect is likely to be different for different persons, depending on how common their name is.

For traditional media we used the hits returned in the Nexis database separately for broadcasts, newspapers, and magazines. At the time of the data collection Nexis output format was such that if a search returned more than 1000 hits, it would limit its display to only that number and not reveal how many hits there were above 1000. In these cases, to estimate the number of hits we searched for the first six months and last six months of the 5-year time period and estimated the total number of hits above 1000. If such a search still had the 1000 hit limit problem, we dropped to the first and last month windows and adjusted accordingly. Once we found the time interval with fewer than 1000 hits we had a valid number of hits with which to estimate the total relevant Nexis hits from the beginning and ending time slices of the larger time interval. Recently Nexis improved its output format to show the total number of hits for as large a search time period as one chooses to use, a benefit for future Nexis-based research similar to ours.

The raw data file included for each persona the estimated number of relevant hits (retrieved media items) for each of the media of newspapers, magazines, broadcast (mainly television but including radio), Google retrieved web pages, Google Group posts, and discussion thread length. In other words, each of these variables was an estimated count of the number of valid items in the medium that included the person's name. As

such, this is ratio level data because of having a true zero number of items possible, equal intervals holding across the numerical range, and no ceiling or upper limit. The other raw data is the discussion texts and indices of semantic networks and other content variables describe below.

Inter-Coder Reliability

An appropriate statistical test for reliability with interval/ratio level data, here the number of relevant hits per person within each medium studied, is Pearson Correlation or Lin's Concordance (Neuendorf, 2002). For assessing reliability nine pairs of coders were established and each pair was given 25 different public figures in common for each comparison group: living famous celebrities, dead famous celebrities, dead normal celebrities, and living and dead public intellectuals. The sets of 25 public figures were selected based on alphabetical order. PRAM software was used to compute the reliability coefficients. PRAM has been tested and recommended by Nuendorf for situations in which there are multiple coders such as we have. The trial version of the software is available for free from (http://www.geocities.com/skymegsoftware/pram.html). For each of the media variables assessed, the two reliability scores, Pearson Correlation and Lin's Concordance, were virtually identical so only a single reliability number, Pearson Correlation, is presented in Table 2 for each media count variable.

Reliability of coder estimates of the number of relevant hits per 100 was first separately computed for coding of Google web page hits, Google Group discussion post hits, Threadedness, Broadcast hits, Newspaper hits, and Magazine hits for each set of 25 members of the comparison samples. The average of the reliability coefficients across all

media variables for each comparison group is shown in Table 2. Values range from .93 to .99. The average of these values is .94.

Insert Table 2 About Here

Log Normalization

Raw media hits variables typically have highly right-skewed distributions, with some high extreme scores but most scores near the bottom of the distribution. As is the practice in social research for counts variables, these were log-transformed (natural log) to normalize their distributions, thus lowering the overall abnormal variance. Statistical tests assuming normality of distributions (t-tests, correlations, factor analyses) are therefore less subject to bias from abnormality.

Corpus Construction

In building the two text corpora, one for celebrities and one for public intellectuals, we took the list of celebrities (living and dead) and public intellectuals (living and dead) and alphabetized the listing for each group. A skip interval cluster sample technique was used. For celebrities, every 8th one on the list as selected as a cluster seed and that celebrity plus the next 5 used as a cluster. Their first and last names were used in quotations as a search term in Google Groups, which returned posts containing the name including a count of the number of posts in the thread, ranging from 1 upward. The entire contents of the first 5 relevant threads longer than 7 posts were extracted in full text form. For public intellectuals a similar process was used.

WordLink Analysis

The celebrity and public intellectual corpora were cleaned with a perl script that removed headers, spam, and imbedded quoted text from prior posts. Google Groups page format text was also removed. Blank lines were removed to enable a more valid total text file size estimate. The files were in plain text format. The celebrity text file was 8.65 megabytes in size while the public intellectuals text file was 9.88 megabytes.

Each file was separately analyzed with WordLink Infinity version (Danowski, 2008), equivalent to earlier versions (Danowski, 1993a, 1993b; 1993c) except with unlimited input capacity. The program removes non-text characters (other versions analyze Unicode graphical characters). No stop list was used. Numerical characters were removed. Words and word pairs with frequencies of 1 or 2 were dropped. A word window of 3 words on either side of each word was used for identification of word pairs. Order of words within pairs was maintained so that a pair [word A-word B] was treated as distinct from [word B-word A]. The pairs were not weighted by distance within the three-word window, all such pairs being treated the same. The stemming option was not used.

Operationalization of Entropy

Entropy is operationally defined by extracting all word pairs within three word positions on both sides of each word in the text corpus for the type of public figure, celebrity or public intellectual, and aggregating the counts for the word pairs within each textual corpus. These counts are converted to proportions by dividing by the total number of word pair frequencies in a corpus. The standard Shannon formula for entropy: $H = -\epsilon$ $p_i \log p_i (1/n)$ in the distributions of word pair proportions was computed. By dividing the H value by the total number of pairs in each corpus, this standardizes the H values to remove the effects of differences in the number of word pairs for the two corpora. The F-

test for differences in variances (of which entropy is one form) was used for the test statistic.

Operationalization of Abstractness

Measurement of the abstractness of the discussions for celebrities compared to public intellectuals identified which word pairs produced by WordLink were significantly different in relative frequency for discussions about celebrities compared to public intellectuals. Those pairs with one element having a frequency of 5 or less were dropped. After this, there were 550 such pairs. Significantly different word pairs for celebrities numbered 145 compared to public intellectuals' 405 pairs. We then took the nouns in each such set of word pairs and examined the hierarchy of meaning levels listed in the WordNet database (Felbaum, 1998) available for download at http://wordnet.princeton.edu/. We counted the number of hypernym levels for the word. The lower this value, the higher the abstractness of the word. A hypernym is the next level of abstractness for a noun that has the relation: word is a kind of word, e.g. actor is a kind of performer. For example, the word "actor" has 8 hypernym levels, each marked with an arrow, for actor: performer, entertainer, person, organism, living thing, object, physical entity, entity.

Actor: Sense 1

<noun.person> actor, histrion, player, thespian, role player -- (a theatrical performer)

=> <noun.person> performer, performing artist -- (an entertainer who performs a dramatic or musical work for an audience)

=> <noun.person> entertainer -- (a person who tries to please or amuse)

=> <noun.Tops> person, individual, someone, somebody, mortal, soul -- (a human being; "there was too much for one person to do")

=> < noun. Tops> organism, being -- (a living thing that has (or can develop) the ability

to act or function independently)

- => <noun. Tops> living thing, animate thing -- (a living (or once living) entity)
 - => <noun. Tops> object, physical object -- (a tangible and visible entity; an entity that can cast a shadow; "it was full of rackets, balls and other objects")
 - => <noun. Tops> physical entity -- (an entity that has physical existence)
 - => <noun. Tops> entity -- (that which is perceived or known or inferred to have its own distinct existence (living or nonliving))

The t-test for independent samples was used to compare the mean values of abstractness for the two samples.

Operationalization of Central and Peripheral Content

Central features of celebrity and public intellectual media coverage are concerned with thematic content about an issue or problem or assessment of some aspect of a social system or societal process as the main text content of messages. Peripheral features of messages are reflected in word pairs suggesting aspects that are not the main substantive content of the messages but refer to such things as the type of venue (tv show, movie, blog, etc.), how the media message is rendered and packaged, where the celebrities appeared, how they looked, and what situation they were in, the number of scenes, locations, what medium it was, what colors, textures, sound track features, what genre, what type of material: movie, television show, internet interview, etc.

For example, in a public service advertisement about recycling the central thematic content would describe what recycling is, what items can be recycled, how to recycle, what is done with materials after pickup, what are the economic implications, what are the consequences of recycling or not recycling. In contrast, the peripheral

features would be the location shown, presence of other items on the set, the pace of the editing, the colors, the nature of the sound track in terms of non linguistic elements such as music or other sounds, who the spokesperson is and their characteristics, etc.

To index the extent to which discussions for celebrities compared to public intellectuals focused on central versus peripheral media content, two coders judged whether each of the 550 word pairs was more likely to be a central textual concept in media coverage or more likely to be a peripheral concept. The proportions of word pairs judged to be central to messages was statistically tested using the z-test for the mean proportions for the two groups.

Operationalization of Socio-Emotional Content

Socio-Emotional features are positive or negative affect suggested by the word pair. The key to coding this variable is to imagine the likely state of the involved individuals when a particular word pair would likely be associated with them. The adjectives, adverbs, and verbs are particularly revealing of affect. For example, "bad actor" would be judged as socio-emotional, while "Supreme Court" would be judged as not socio-emotional.

Two coders estimated for each of the 550 significantly different word pairs the likelihood that the pair was socio-emotional. A judgment was dichotomous. Coders were asked to estimate whether or not the pair was socio-emotional according to in what message contexts they thought the pair would typically appear. Inter-coder reliability was .87.

Operationalization of Central/Peripheral Content Orientation

Central features of messages are concerned with thematic content about an issue or problem, or assessment of some aspect of a social system or societal process as the main text content of messages. For example, in a public service advertisement about recycling the central thematic content would describe what recycling is, what items can be recycled, how to recycle, what is done with materials after pickup, what are the economic implications, what are the consequences of recycling or not recycling. In contrast, the peripheral features would be the location shown, on-air talent and their characteristics and performance, presence of other items on the set, the pace of the editing, the colors, the nature of the sound track in terms of non-linguistic elements such as music or other sounds, who the spokesperson is and their characteristics, etc.

In addition, peripheral message features include type of venue such as tv show, movie, web page, blog, etc. Although these are communicated in textual form in our corpora, such text is subordinate to the characterizations of peripheral features, and textual themes are not the primary focus of the message. Two coders judged whether each of the 550 significantly different word pairs were dealing with central or peripheral material as it would typically be used in the context of a mediated message. Reliability was .94. A z-test for differences in the proportions of central and peripheral features for the two groups was used to test the hypothesis.

Operationalization of Narcissism

The measurement of narcissism in discussion lists is based on Raskin and Shaw's (1988) study that captured extemporaneous monologues by asking subjects to talk for approximately 5 minutes on any topic they chose. Following this, the subjects were administered the Narcissistic Personality Inventory (Raskin & Hall, 1979), the Eysenck

Personality Ouestionnaire, and the Rotter Internal-External Locus of Control Scale. The monologues were tape-recorded, transcribed and analyzed for the subject's use of personal pronouns. As hypothesized, individuals who scored higher on narcissism were significantly more likely to use first person singular pronouns ("I") and fewer first person plural pronouns ("we"). Discriminant validity for the relationship between narcissism and first person pronoun usage was exhibited in that narcissism did not show a relationship with subjects' use of second and third person pronouns nor did the personality variables of extraversion, neuroticism, or locus of control exhibit any relationship with the subjects' personal pronoun usage.

The hypotheses are tested with independent sample t-tests of the mean ratios of the word "I" to the word "we" in the two groups.

Threadedness

For threadedness, our second-order network degree measure, the first 100 hits from Google Groups were used to index the number of posts that are replies to a previous post in a chain in which the public figure was mentioned. Google Groups output lists this at the bottom of each hit: the number of posts in the thread and the number of posters.

The threadedness measure is a second-order network feature because it involves a series of links between messages in a medium. At a minimum is a single message pair, with each message serving as a node and the relationship between them as a link. In a discussion thread there can be multiple overlapping message pairs as additional replies to an earlier post are entered (Danowski, 1982, 1988). The network is also second-order in a different sense, because the link agent is the public intellectual or celebrity. As such, the linker is operating at a different level than the linked messages.

Living or Dead

Corpus Results

For celebrities the living and dead celebrities were reported by Market Evaluations, Inc. in the membership of their Q-Scores lists, one for living and one for dead celebrities. For less famous celebrities, we analyzed only dead celebrities from the reports on the Dead People server. For public intellectuals, Posner (2001) listed for each whether they were dead or alive. The ones listed as alive were each checked to see if they had since died by searching for obituary information on the web.

Results

Factor Structure Underlying Media Variables

To assess associations among media, factor analysis was chosen. Factor analysis is suitable with our ratio-level data of log-normalized counts of media hits. Factor analysis is useful in that it allows assessment of the underlying dimensionality among the items, in this case, different media. It describes the structure underlying the media hits. Principal components method was used. Table 3 shows the results of the factoring. Two factors emerged with Eigenvalues greater than 1.0. The first factor explained 58% of the variance while the second explained 18%. All media except for newspapers loaded strongly on the first factor showing unidimensionality for those items. Along with newspapers, threadedness has its highest loading on the second factor but its loading was low, indicating that threadedness stood apart from the other media variables, including the number of discussion posts. This finding suggests that social network variables represent unique properties that are emergent from the surface of media coverage.

The WordLink program found that for celebrities there were 26,027 unique words with total number of words of 1,365,786. That is 194 unique words per celebrity and 10,192 total words per celebrity. For public intellectuals there were 16,443 unique words with a total of 624,838, or 203 unique words per public intellectual and 7,714 total words per public intellectual.

Word pairs for celebrities numbered 312,374 unique pairs and total pair frequencies of 3,020,078 or 2,331 unique pairs per celebrity and 22,538 total pair frequencies per celebrity. For public intellectuals, unique word pairs numbered 145,388 and the total word-pair frequencies were 1,269,873 or 1,791 unique pairs per public intellectual and 15,677 total pair frequencies per public intellectual.

For descriptive purposes it is interesting to consider the word-network structures. With numbers of nodes this large, graphing the entire network would not result in clear images. So, a node-centric analysis is presented which uses the program Nodetric (Danowski, 2003) to extract all words linked within 5 steps from a target word. The node-centric network was displayed using NetDraw (Borgatti, 202).

Figure 2 shows the most frequent links (greater than 30) connected with the most significantly more frequent word for the celebrity corpus compared to the public intellectual corpus, the word "show." Figure 3 shows the node-centric network (frequency of links greater than 30) for the most significantly more frequent word for the public intellectual corpus compared to the celebrity corpus: "law." Examination of the two networks reveals that they focus on different themes.

Media Presence

H1: Celebrities have a greater presence in traditional mass media than do public

intellectuals.

Celebrities, compared to public intellectuals, have significantly more: Google web page hits (p < .000), Google Group posts (p < .000), broadcast hits (p < .000), and magazine hits (p < .000) than public intellectuals. Only for newspaper did celebrities have equivalent hits to public intellectuals. Overall sum of media hits shows celebrities to out do public intellectuals on media hits (p < .000). H1 is supported for all media variables except newspaper hits. See Table 4 for details.

Separate analysis was performed for living versus dead celebrities and public intellectuals and dead celebrities exceed dead public intellectuals on all media variables (p. < .000). For living celebrities they exceed living public intellectuals on all media variables except newspapers (p. < .000), where living public intellectuals have more coverage (p. < .000)

Insert Table 4 About Here

Entropy

H2: Discussions about celebrities in online forums are more entropic than discussions about public intellectuals.

The H value for celebrities was divided by the H value for public intellectuals. The critical F value for df (66,80) is 1.72 for p < .01. The greater the positive value of this F ratio, the greater the entropy for celebrities compared to public intellectuals. Socio-Emotional Orientation

H3: Social networks about celebrities have stronger socio-emotional ties than social networks about public intellectuals.

The mean for celebrities is .26 and standard deviation of .44 while for public intellectuals the mean was .15 with a standard deviation of .36. This difference was as predicated with t value of 2.79 (df=547) and p. < .002. Hypothesis 3 is supported.

Abstractness

H4: Discussions about celebrities will be less abstract than discussions about public intellectuals.

For public intellectual discussions the mean abstractness value for nouns in significantly different word pairs was 6.71 with a standard deviation of 1.65. Celebrity discussion nouns had a mean abstractness of 8.13 and a standard deviation of 2.87. This difference was significant with a t value of 5.3183 (df =291) at p. < .0001. The hypothesis was supported.

Narcissism

H5: Individuals discussing celebrities are more narcissistic than those discussing public intellectuals

We divided the frequency of the word "I" by the frequency for the word "we" for the celebrity and public intellectual corpora. For celebrity threads the ratio was 7.21 and for public intellectual threads the ratio was 4.47. This is 160% higher narcissism for the celebrity posters. Individuals discussing celebrities are more narcissistic than individuals discussing public intellectuals. A t-test found that this difference was significant at p < .000. The hypothesis 5 was supported.

Thread Length for Public Intellectuals and Celebrities

H6: Public Intellectuals have longer discussion threads associated with them than do celebrities.

For public intellectuals the mean log normalized thread length mean was 3.22 with a standard deviation of 1.07. For celebrities the mean length was 2.29 with a standard deviation of .76. The t-test had a t-score of -15.59 (df = 1005) with p. < .000. Hypothesis 6 was supported.

Central/Peripheral Content Orientation

H7: Discussions about public intellectuals will focus more on central media message themes while discussions about celebrities will focus more on peripheral aspects of media messages.

The mean value for central focus for discussion about public intellectuals was .63 with a standard deviation of .68, while for celebrities the mean was .19 with a standard deviation of .39. The t value was -7.442 (df=549), p. < .000. Hypothesis 7 is supported.

Thread Length for Dead Public Intellectuals and Celebrities

H8: Dead public Intellectuals have longer discussion threads than dead celebrities.

Dead celebrities have mean log-normalized thread lengths of 2.31 with a standard deviation of .84 while dead public intellectuals have a mean of 3.30 and a standard deviation of .90. The t value is -10.65 (df = 426) with p < .000. Hypothesis 9 is supported.

Internet Presence of Dead and Living Celebrities and Public Intellectuals

H9: On the internet, dead celebrities and public intellectuals will be more present than their living counterparts.

The mean of log-normalized Google hits for dead public intellectuals is 6.74 with a standard deviation of 2.24, t = -2.50 (df = 404) and p. < .01. This indicates that dead public intellectuals have significantly longer thread lengths than living public intellectuals. For celebrities the mean log-normalized number of Google hits for dead ones is 9.57 with a standard deviation of 2.11 and for live ones is 9.60 with a standard deviation of 2.13. The t value is .177 (df = 635) with p < .43. The finding for the public intellectuals supports the hypothesis but the celebrities have no difference whether dead or alive.

Media Presence of Dead Famous vs. Dead Normal Celebrities

H10: Famous dead celebrities will have a longer media afterlife than normal dead celebrities.

First dead famous and dead normal celebrities were compared in terms of lognormalized media hits on each medium. Across all media famous dead celebrities had significantly higher media presence with p < .000 for each medium. On average the famous had 18% more media presence. While this supports the hypothesis, 18% does not appear to be a very large difference. This suggests that even non-famous celebrities receive nearly as much media coverage after their death as dead famous celebrities. Perhaps this is because the media assume that anyone known widely appeals to a sufficiently large audience to program content for it. From the audience perspective, they generated the same ratio of posts about the two groups, indicating supporting the suggested explanation for media coverage in the mass media and in web pages.

H11: Dead famous celebrities will exceed living famous celebrities in media hits.

The dead celebrities have no significant differences in broadcast stories but have significantly (p. < .000) more web pages according to Google, have fewer Google Group posts, more newspaper stories and more magazine articles. See Table 5 for details.

Discussion

Summary of Findings

Considering all three samples, threadedness, our second-order network and sociomorphic variable, stands alone as a distinct media variable, while broadcast, magazine, Google, and Google Group hits form a single main dimension. Newspapers hits loaded by itself on a second dimension.

Threadedness also is consistently longer for public intellectuals comparing dead celebrities to dead public intellectuals, dead normal celebrities to public intellectuals, and living celebrities to living public intellectuals. Public intellectuals' sociomorphic quality, their agency in producing more active social networks in discussion lists is well evidenced across the variety of comparisons. Moreover, when comparing dead to living public intellectuals the dead have significantly different longer threads than the living public intellectuals as well as the dead having more Google Group hits and have the same regular Google hits. In traditional media is where the living public intellectuals out hit the dead. Cyberspace provides an afterlife for public intellectuals in which they sociomorphically function better than the living.

While celebrities, compared to public intellectuals have more hits on all media variables except threads and newspaper hits, dead celebrities, compared to dead public intellectuals have more hits on media variables except for threads. In short, living

celebrities populate all media more than living public intellectuals on all variables except threadedness and newspaper hits. The same is nearly true of dead celebrities, although while maintaining their advantage on threadedness, public intellectuals lose their newspaper advantage.

Continuing their sociomorphic agency advantage, dead public intellectuals have longer threads than dead normal celebrities, although the later have more Google and magazine hits. Normal celebrities out thread famous celebrities but have fewer Google and magazine hits.

In quantitative terms, dead or alive, public intellectuals have 44% longer normalized threads than famous celebrities. Considering raw hits, because of outliers, public intellectuals have threads 3 times as long.

Dead or alive celebrities have 20% more normalized traditional and web media coverage than public intellectuals.

When considering the content of discussion threads sample for celebrities and public intellectuals, celebrities had more entropy in their discussions, more socio-emotional content, and more focus on peripheral aspects of messages, while public intellectuals had less entropy, more abstract content, and focused more on central message elements. Those postings about celebrities were more narcissistic than those posting about public intellectuals. Across all comparisons, public intellectual posts had longer threads than those for celebrities, indicating more social network agency (sociomorphism) for public intellectuals.

Limitations

One limitation that we adjusted for in this research relates to how Nexis reports results of searches. When more than 1,000 results are anticipated for a search, Nexis will not even reveal the number of hits that are 'out there'. This means we have to search the first 6 months of the 5-year period, then the last 6 months, and then multiply this agglomeration by 5 to get an approximation for the whole time period. Since we did the data collection Nexis has changed its reporting format so that the total number of hits is returned regardless of the time frame, so future research using such data will be more cost-effective in terms of coding time.

Meanwhile, Google searches were not time-limited, and this could be seen as problematic because Google can yield results from well before 1998. Still, the steepestsloped growth of the Web being in the last 5 years means that our results were still heavily weighted toward more recently posted material.

We used Posner's census, and although we expanded on it, incorporating many of the names that critics claimed Posner should have included, we did not use a social network generator to identify a new more representative group.

Our sampling of the Q Performers list restricts our Famous Celebrities to those with commercial potential as identified by Marketing Evaluations, Inc., Inc. Our Normal dead Celebrities sample is the product of the Dead Celebrities listed on the Dead People Server Website: http://dpsinfo.com/dps/

Future Directions

When we first reported results about public intellectuals (Danowski & Park, forthcoming) we called for future research to give more attention to the *content* of the discourse threads, not just to volume and threadedness, by studying the word association networks across discourse streams. In the current study we answered our own call and did extensive content analysis using semantic network analysis of post content as well as coding abstractness, socio-emotional content, central/peripheral content, and narcissism. Nevertheless, as yet not done is content analysis of the media coverage of celebrities and public intellectuals, going beyond the number of media items about each and into the framing of messages.

Implications

The literature on celebrity culture makes it seem as though the current media attention given to celebrities is socially significant. While our findings see celebrities populating the traditional media and regular Google searches 23% more than public intellectuals, when examining the ability of celebrities to provide agency in fostering social networks associated with them, they pale in comparison to public intellectuals, where even the dead ones outdo the living celebrities. On every kind of comparison of famous living and dead celebrities and dead normal celebrities to living and dead public intellectuals, the public intellectuals are consistently associated with more than double the strength of social agency in terms of the length of discussion threads. From a perspective in which perhaps the most important social power of public figures is to stimulate active discourse networks—what we call sociomorphic power—celebrities have considerably less impact than public intellectuals.

Broadly speaking, the comparison of public intellectuals and celebrities across the dimensions we investigate in this research indicates that the supposed disappearance of the public intellectual—itself only one component in the standard declinist narrative concerning public intellectuals—may have been overstated by prior commentators and

researchers. Far from disappearing, public intellectuals—even dead ones—appear to be active rallying points for online public discussion. Of course, the quality of this discussion was not analyzed here, but the discussion itself was most apparent.

Another major issue here relates to how time functions in web-based media. Mass communication (print and broadcast) appears, in this study, to turn individuals into 'well known strangers' very quickly, and then to allow their celebrity to dissipate almost as quickly. The living and dead public intellectuals' relative prominence in online discussions and on the web demonstrates the web's oft-ignored function as a storage medium, capable of supporting relatively long-lasting discussions that are free to reach back in time to topics and individuals who may have been dead for decades or even centuries. Though many of us may still associate the web with novelty and with rapidly-updating content—which is often the dominant approach in discussions of web journalism—this study shows how the web's relationship to time allows for more time-biased content. This relationship to the past, in turn, seems to support communication about public intellectuals in a manner largely unrecognized by those who address the topic of the public intellectual.

It is also interesting, in light of our other research, to notice how our current results relate to the study of reputation. Other researchers have focused on how reputations of the dead are shaped by "reputational entrepreneurs" (e.g. Lang & Lang, 1988; Rodden, 1989; Rothenbuhler, 2005). One of the basic ideas to come out of this strain of research is the notion that reputation is a social enterprise, carried out by numerous factions. We have already argued (Danowski & Park, forthcoming) that the work of reputational entrepreneurs should not be approached in a media vacuum, the

point being that different media relate differently to the functions of the reputational entrepreneurs. Our current results allow us to revisit this very general finding to point to differences between celebrities and public intellectuals as they appear via web-based media in this study. Considering the marked differences between celebrities and public intellectuals in terms of the size and threadedness of online discussions—with discussions about public intellectuals far outstripping discussions about celebrities—we suggest that online forums provide inroads for reputational commentary that may adjust how reputations operate over time. Put briefly, the already surprisingly collaborative and collective work of creating reputations for others seems to relate to the kind of work done by the "collective intelligence" described by Pierre Levy (1997). Though there is still gate-keeping involved in the process of constructing reputations (for the living and dead), the process appears in this study to be surprisingly open collective activity.

Although celebrities appear to have acquired a prominent place in the American media landscape, particularly when compared to public intellectuals, once their construction as industrial output of the mega-media machines grinds to a halt upon their death, they loose much of their sociomorphic power. Self-appointed agents are less able to create and sustain online community around celebrities through weaving threads of discourse that manifest as social networks. Celebrities tend to leave no enduring concepts or principles that foment future filaments of light in the ethereal darkness. Their indiscriminant glow fades quickly. In contrast, public intellectuals, much less the commodity output of media machines, are recognized not only in life for their honed and directed conceptual beams, these continue as beacons of thought that online persona shine through one another to illuminate and give life to social networks in the time-

suspension of cyberspace, a place grounded on the mélange of human communication networks. Nevertheless, celebrities appear to foster more entropy in audiences' social networks online and more socio-emotional discourse. This may be considered a healthy balance to the negentropic, structured discussions about public intellectuals and their higher abstractness. While public intellectuals have more agency in generating more active online social networks, along with their negentropic content and abstractness, celebrities provide a balance through discussing more socio-emotional and concerned with appearances over substance. Perhaps this is evidence for a more balanced social system in terms of relative attention to message content and its style of packaging. On the other hand, as the celebrity orientation appears to be growing in the U.S. society, at some point, or perhaps already, the scales may tip too much toward celebrities. Future research should consider investigating this degree of balance and its implications.

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Table 1. Examples of Members of Lists: First 30 in Alphabetical Order

Dead Celebrities	Living Celebrities	Public Intellectuals
Abbott & Costello	Jane Alexander	Aaron Henry J.
Steve Allen	Tim Allen	Morris B. Abram
Louis Armstrong	Alvin Alvarez	Floyd Abrams
Arthur Ashe	David Anders	Bruce Ackerman
Fred Astaire	Maya Angelou	Mortimer Adler
Gene Autry	Courteney Cox Arquette	Renata Adler
Pearl Bailey	Ashanti	Theodor Adorno
Lucille Ball	Essence Atkins	Fouad Ajami
Count Basie	Dan Aykroyd	Akhil Amar
John Belushi	Michael Badalucco	Kenneth Anderson
Jack Benny	Jeff Bagwell	Anthony Appiah
Humphrey Bogart	Dusty Baker	Hannah Arendt
Ray Bolger	Simon Baker	Hadley Arkes
Erma Bombeck	Rudi Bakhtiar	Thurman Arnold
Victor Borge	Alec Baldwin	Raymond Aron
Lloyd Bridges	Ashleigh Banfield	Timothy Garton Ash
George Burns	Ronde Barber	W.H. Auden
Raymond Burr	Drew Barrymore	James Baldwin
James Cagney	Gary Basaraba	Edward Banfield
John Candy	Kristin Bauer	Benjamin Barber
Karen Carpenter	Kylie Bax	Richard Barnet
Wilt Chamberlain	Catherine Bell	Randy Barnett
Charley Chaplin	Maria Bello	William Barrett
Maurice Chevalier	Maurice Benard	Robert Barro
Craig Claiborne	Annette Bening	Roland Barthes
Roberto Clemente	Chris Berman	Jacques Barzun
Lee J. Cobb	Josh Binswanger	Peter Bauer
Nat King Cole	Josie Bissett	Martha Bayles
Gary Cooper	Alexis Bledel	Simone de Beauvoir

Craig Bolerjack
Peter Boyle Howard Cosell Gary Becker Jacques Cousteau Louis Begley

Table 2. Reliability Coefficients: Averages across Media Variables for Comparison Groups

Living Famous Celebrities	.96
Dead Famous Celebrities	.94
Dead Normal Celebrities	.99
Public Intellectuals	.93
AVERAGE	.94

Table 3. Factor Loadings for Media Hits Variables

	Factors			
	1	2		
web pages	.896	246		
discussion posts	.875	294		
magazine articles	.830	.160		
broadcasts	.804	.296		
newspaper stories	.535	.714		
discussion threads	481	.571		
Eigen values	3.42	1.09		
Variance	57.8%	18.0%		

Table 4. Media Presence of Celebrities versus Public Intellectuals

		Cel=1/PI=0	N	Mean	SD	t	df	p. <
Ln	(Google hits)	1	637	9.58	2.12	25.31	1291	.000
		0	656	6.38	2.40			
Ln	(Google Groups posts)	1	629	8.85	2.34	18.63	1283	.000
		0	656	6.38	2.40			
Ln	(Newspaper articles)	1	566	4.94	2.32	23	1218	.405
		0	654	4.96	2.01			
Ln	(Broadcast stories)	1	513	3.38	1.95	9.94	1002	.000
		0	491	2.23	1.70			
Ln	(Magazine articles)	1	551	3.13	1.70	13.19	1211	.000
		0	662	1.15	3.17			
Ln	(Overall media present	ce) 1	484	12.1	4.89	6.44	971	.000
	_	0	489	10.0	4.91			

Table 5. Media Presence of Living vs. Dead Famous Celebrities

		Live=0/Dead=1	N	Mean	SD	t	df	p. <
Ln	(Overall media presence	e) 0	252	31.56	7.76	-4.847	399	.000
		1	149	34.97	4.80			
Ln	(Google hits)	0	325	9.60	2.13	-6.088	478	.000
		1	155	10.73	1.30			
Ln	(Google Groups posts)	0	320	9.64	2.19	1.719	472	.086
		1	154	9.31	1.32			
Ln	(Newspaper articles)	0	267	3.76	2.11	-17.248	420	.000
		1	155	7.04	1.40			
Ln	(Broadcast stories)	0	267	3.76	2.11	.263	417	.792
		1	152	3.71	1.10			
Ln	(Magazine articles)	0	285	3.25	1.80	-3.776	433	.000
		1	150	3.85	1.04			

Figure 1. Plot of Media Variables on Factors (Components)

Component Plot in Rotated Space

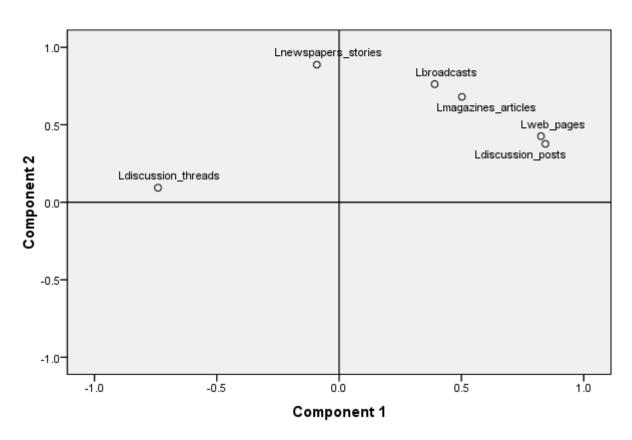


Figure 2. Semantic Network from Celebrity Discussions Centered on "Show"

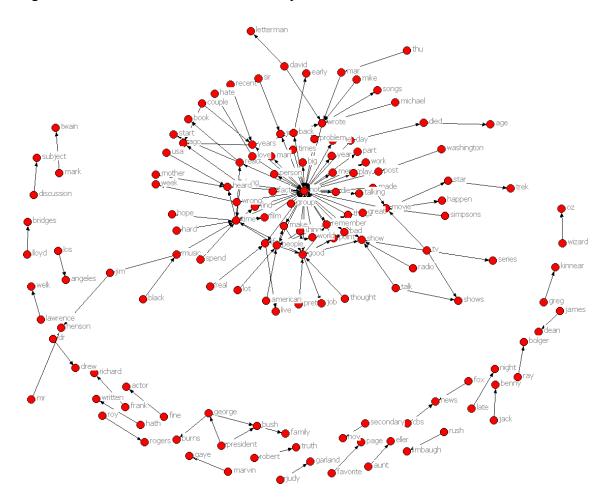


Figure 3. Semantic Network from Public Intellectual Discussions Centered on "Law"

