Success in the "Blogosphere": Exploring the Role of Technology

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Abstract

Weblogs have become an influential form of Web publication and communication, with leading weblog sites attracting millions of visitors, and creating considerable media hype as well as commercial value. Yet, weblog success is not easily achieved, as some research suggests that following "powerlaw" with only few weblogs achieve very high level of readership while most weblogs garner little attention by the wide community. Furthermore, according to current research, such exponential distribution of popularity leads to popular weblogs becoming even more popular while less popular ones lose further. This exploratory study sought to explore weblog success from technology aspect, i.e. from the impact of weblog-building technology (or "blogging" tool). Based on an analysis of Technorati's top-100 weblogs traced over a period of three months, we categorized weblogs by popularity and popularity change using a rank aggregation method, and evaluated the relationship between weblog success and technology use. As a result, blogging tools, classified into three generations, were found to influence weblog success, apparently as a driver of popularity growth.

Keywords: Weblog (blog), Weblog success, Blogging tool, Blogosphere, Powerlaw, Rank aggregation technique

1. Introduction

Weblogs (or blogs) are becoming a "new form of mainstream personal communication" (Rosenbloom 2004) for millions of people to publish and exchange knowledge/information, and to establish networks or build relationships in the "blogoshpere". Weblogs are designed to facilitate simple and fast creation of Web content without much technical or programming skill. Weblog-building technology (or "blogging" tool) brings Web publication and communication capability to average people and especially those non-technical users. Recent releases of blogging tools have been further improved to provide enhanced interactive features for between-blog commenting and hyper linking, thus promoting the creation of social networks of bloggers. Weblog popularity has surged over the last few years. It reached between 2.4 and 2.9 million active weblogs in June 2003 (Blogcount.com), and over 5.9 million (www.Technorati.com) active weblogs by the end of 2004. According to Sifry (July 2004), founder and CEO of *Technorati* (well-recognized for its weblog tracking/ranking service), over 15,000 new weblogs are created daily and an average of at least 3 weblogs were being updated every second. Weblog or blogging technology, enabling a new phenomenon of web-based *word-of-month*, was recently identified as among the top "10 tech trends to watch in 2005" by *Fortune* magazine (Volgelstein et al. 2005).

Most weblogs will never achieve a wide readership, possibly being read only by their author(s) and few others. Nevertheless, during the period of 2003-2004, weblog readership in the US increased by 58%, and reached 32 million (27% of the Internet users) (BusinessWeek

online 2005). Yet, only very few weblogs may ever achieve the readership and financial success of *Instapundit.com*, or the cult status of *Slashdot.com*. In fact, weblog popularity has been expected to follow a *powerlaw* distribution (e.g., Shirky 2003) with most of the readership focused on a very small group of highly popular weblogs, sometimes called the "A-list" of bloggers. It has also been expected that with time, the distribution becomes increasingly uneven, so that the audience-rich would become richer while the audience-poor would become relatively poorer and eventually fade out. And yet, the Web has proven itself again-and-again as a breeding ground for new ideas, new products and new services, allowing, seemingly out of a sudden, new popular websites to emerge and to replace old favorites.

Hence, one purpose of this research is to determine what "separates the winners from the losers" in the new domain of weblogs. The second purpose is to challenge the notion of increasing weblog readership concentration, by identifying factors that can predict the popularity *increase* of weblog sites. While there could be several possible explanations, this being IS research, we will focus on the role of technology in explaining weblog success and popularity improvement.

As an exploratory study, the remainder of this article is organized as follows. The next section starts with a discussion of weblogs and their technology evaluation, and defines blogging tool generations. We then continue by discussing measures of weblog success and popularity rankings. The fourth section then maps weblog success categories against technology generations. Based on these preliminary analyses and findings, the fifth section introduces an explanatory conceptual framework. The article concludes with implications from the study and a look forward to further research.

2. Weblogs and Blogging Technology: the Background

2.1 Weblogs

The term *weblog* was first used by John Barger (1997), and was defined as "A Web page where a weblogger 'logs' all the other Web pages she finds interesting". Weblogs are "distinct in both form and content" (Blood 2004) from other types of Web pages. As a "log on the Web", it is kept mostly in a reverse chronological order with the latest entry at the top of the Web page. As a "log of the Web", it easily refers to other Internet locations via hyperlinks. As suggested by Wagner and Bolloju (2005), weblogs are ideal for experts who wish to broadcast their expertise to a large audience, and are also suitable for average persons who wish to share their stories/diaries with a small group of others. According to Dave Winer (www.scripting.com), a blogging pioneer, weblogs have the following characteristics:

- **Personalized.** Weblogs are designed for individual use (multi-person weblog is also possible through collaboration, such as "team blog" offered by www.blogger.com). Their style is personal and informal.
- **Web-based.** Weblogs can be updated frequently. They are easy to maintain and accessible via a Web browser.
- **Community-supported.** Weblogs can link to other weblogs and websites, enabling the linkage of ideas, and hence stimulating knowledge generation and sharing.
- **Automated.** Blogging tools help bloggers to present their words without the hassle of writing HTML code or program; instead, bloggers just need to concentrate on the content.

2.2 Blogging Tools

Nowadays, most weblogs are powered by weblog hosting services or standalone software, although a few bloggers, like Rebecca Blood (www.rebeccablood.net), still hand code their sites. According to Elise Bauer (2004), approximately 80% of weblogs use hosting services that provide weblog-building tools and server space, while the rest use standalone software that runs on individual servers or Web hosts. Many popular weblog hosts, such as Blogger (www.blogger.com), ModBlog (www.modblog.com), and Xanga (www.xanga.com), offer basic services for free or for a small fee, which are good for new bloggers or general users who are happy with limited server spaces and standard features. But, successful weblogs can outgrow these basic services, and may be forced to choose premium services (at higher cost), or even to set up their own weblog hosts (Rubenking 2003). Comparatively, standalone software is more flexible in terms of server space and control of own content, but requires some knowledge to setup the application and maintain the server. For example, Movable Type (www.sixapart.com/movabletype) and Radio Userland (www.userland.com) are two popular fee-based standalone software solutions. There are also several free and/or open-source weblog software products in the marketplace, such as WordPress (http://wordpress.org) and Drupal (http://drupal.org).

2.3 Evolution of Weblogs and Blogging Tools

While today there exists a variety of software options to create weblogs, the same was not true in the early blogging days. At that time, during the late 1990s, no special tools were available for creating weblogs. Most bloggers hand coded their sites. But, very soon, "it became difficult to read every weblog every day, or even to keep track of all the new ones that were appearing" (Blood 2000). First generation of weblogs appeared when www.Pitas.com launched the first free *build-your-own-weblog* tool, and few others like Blogger released their blogging tools. Although the first generation of blogging tools enabled only link-driven text diaries that were relatively unattractive to look at, they provided the ease and affordable opportunity for non-technical persons to communicate on the Web.

Second generation blogging tools, according to Wagner (2004), developed in two different directions. One branch focused on interface and multi-media capability to share more than just text content with the same *click-and-post* ease, while the other branch focused on cross-weblog interaction and content management, thus facilitating online community development. For example, *permalink*, a permanent URL for each weblog entry, introduced by Blogger in early 2000, enabled referencing of specific past entries like other online source. *Trackback*, a reverse hyperlink tracking the referrer weblogs, introduced by Movable Type in 2001 "made formally invisible connections visible" (Blood 2004). These innovations, including the use of a *blogroll* to manage frequently referenced weblogs on the sidebar, as well as syndication features, have been adopted by many weblog hosts/software, and have since become part of the standard features in the second generation of weblogs.

Recently, a third generation of weblogs and blogging tools has begun to emerge. In addition to improved content distribution and connectivity (e.g., "pingback", or alert of other bloggers' comments or new posts), the third generation tools include additional applications, such as project management or workflow features (Wagner 2004). For example, Lycos Circles (http://circles.lycos.com) offers users to setup the workflow for a party, from invitation to management of responses, to travel directions, and such. ModBlog allows users to setup "friends" list to track their newest blog entries. Third generation weblogs and blogging tools are apparently still in the early stage of development, and mostly are focused on building relationships in online communities; yet, they certainly represent one major trend

of weblog development. Another movement in the world of weblogs is the rise of corporate or business weblogs. IBM, for instance uses homegrown XML-based blogging tools to communicate with the developer community; and Sun Microsystems uses the open-source software called Roller for corporate-wide blogging (Claburn 2005).

In general, weblogs and blogging tools are still in the early years of development. But, they are metamorphosing fast. As we move forward, distinguishing the different dynamics in the consumer, small business, and corporate markets will become more important (Bauer 2005). Future generation of blogging tools may consider different dynamics of the user markets in order to (re)position their services and software applications for different needs, in addition to providing more features to reduce people's publishing, organization, and communication efforts. Consequently, understanding the technology needs for the creation of successful weblogs will be an important goal in the near future. The next section will give some insights into the realm of highly successful weblogs and their characteristics.

3. Weblog Study: the Top-100 Universe

The term *blogosphere* refers to the world of all weblogs, in which "weblogs are heavily interconnected; bloggers read other weblogs, link to them, and reference them in their own writing" (Wikipedia 2005). Such characterization of the blogosphere appears to be most represented by a subset of popular weblogs, known as the "A-list" (Herring et al. 2005). There are a number of Web services that track weblog interconnectivity in the blogosphere and provide popularity ranking based on the number of inbound links. Among these, Technorati, BlogStreet (www.blogstree.com), and TruthLaidBear(TTLB) (www.truthlaidbear.com), are the best-known websites that update their "top 100" weblog lists on a regular basis. Herring et al. (2005) provide a comprehensive review of these weblog anaysis services that have been used as a baseline for empirical research.

In this study, our key interest is the determination of weblog success factors, and particularly, the role of technology. Therefore, the top-100 list of weblogs provided by weblog ranking services can serve as a starting point for our investigation of weblog success. We chose Technorati because it was the most comprehensive among the three tracking sites, tracking more than 3 million weblogs (Sifry 2004) one month before we started the data collection. After all, having a large number of *weblog-base* is important for the commonly accepted blog-ranking technique that is based on inbound links from other weblogs. Hence, with more weblogs being traced, more inbound links can be considered, for a more representative result. Nevertheless, any ranking mechanism will have its own bias, and may not fully represent the blogosphere as a whole. But, we expected that monitoring the largest tracking site would provide reasonable empirical evidence for our understanding of the top-100 universe of successful weblogs.

3.1 Sampling: Makeup of an A-list Weblogs

During a 3-month period, from August 1st to October 31st of 2004, we recorded all the weblog ranking information that appeared on Technorati's daily updated top-100 listing. Technorati's ranking was determined by, the "number of blogs who links to the site", also referred to as the number of inbound links. A total of 169 weblogs or websites appeared on the top-100 list at some point in time during our observation period.

A pre-analysis of this website list led to the following observations. First, a number of websites did not meet our criteria for being a weblog. While they were frequently changed content sites with inbound links from other weblogs, they did not meet both the criteria "that

the site consists of dated entries" [Brigitte Easton, see (Blood 2000)], and that the entries were episodic or conversational in a diary or story telling format. Second, there were a number of weblogs that had only a fleeting presence among the top-100 during the three months observation period. Thus, to measure the top-100 more reliably, we decided to remove weblog sites with less than 7 days presence on the top-100 list. The removal of non-weblogs lowered the count by 21 cases, and the removal of weblogs with only short-term presence led to another 22 cases being removed. Hence, overall we were left with 126 weblogs. They are referred to as the "A-list" for the purpose of our weblog analysis in the following sections.

3.2 Rank Aggregation Technique

The task of combining ranking results from various alternative preferences is called "rank aggregation". It is widely discussed in the literature concerning *social choice theory*, and has found its application in determining winners for sports and elections, and recently in the context of the Web (e.g., Chin et al. 2004, Dwork et al. 2001). *Borda's* rule is one of the most popularly used rank aggregation methods, and we applied it to aggregate weblogs' daily popularity ranking scores over the 3-month evaluation period. Since this study measures weblog success based on its popularity ranking, this rank aggregation technique provides certain degree of robustness over a period of time by reducing the bias and unstable preference of daily rankings. In addition, we believe that using a ranking score better reflects the relative position of a weblog in the A-list, than its numerical value of inbound links (the number of inbound links varied everyday, and its accuracy might also be in question).

Based on the *Borda's* rule, we assigned a score (S_i) to each weblog (i), relative to its daily ranking in the A-list. For example, the 1st rank among 126 weblogs was given the score $S_1 = 1$, and the 2nd weblog in the ranking had the score $S_2 = 2$, and so on. And then, we calculated a monthly mean ($\overline{S_i}$) of each weblog for each of the three months. The monthly aggregated ranking scores were then determined based on the ranking of a weblog's $\overline{S}$ value in the A-list; similar to the way we assigned the daily ranking scores. As a result, the popularity ranking scores used to categorize weblog success in the next section were all *monthly aggregated ranks* following the *Borda's* rule, and we simply referred to them as "*ranks*".

3.3 Categories of Weblog Success

3.3.1 Categorization Criteria

Table 1. Two Dimensions of Weblog Popularity

Popularity		Definition
Rank	**High**	Weblog popularity rank insides the A-list
	Middle	Weblog popularity rank bounces between inside/outside of the A-list
	Low*	Weblog popularity rank outsides the A-list
Growth	**Positive**	Weblog popularity rank increases over the 3-month
	Neutral	Weblog popularity rank being stable over the 3-month
	Negative	Weblog popularity rank decreases over the 3-month

* Not observed in current study.

Our analysis sought to determine the impact of technology on popularity (static) and popularity change (dynamic). Hence, we decided to analyze overall scores of weblog popularity and changes in weblog popularity scores over the 3-month period. We further decided to categorize weblogs into three groups each for *popularity* ("rank") and *popularity*

change ("growth"), so as to create comparable categories of weblogs. Table 1 depicts the categorization criteria.

Although we categorized weblog popularity into three levels, we only captured *high* and *middle* ranks, given that all tracked weblogs were ranked at least for some time during the observation period among the top-100 most popular weblogs out of several million. To separate growth rates, we used the threshold level of "10" ranks and compared the three monthly aggregated ranks for each weblog in the A-list. In other words, growth was considered *neutral* if a weblog's popularity changed within 10 ranks (up or down) over the three months. A 10+ increases in the ranks (increased popularity) was labeled as *positive*, a corresponding drops as *negative*. We chose the value 10, because it reflected a, quite considerable, 10% movement among the top-100. Our breakdown of weblogs by category is shown in Figure 1, with each category labeled according to its popularity rank and growth. The detailed classification of each weblog category is shown in Table 2.

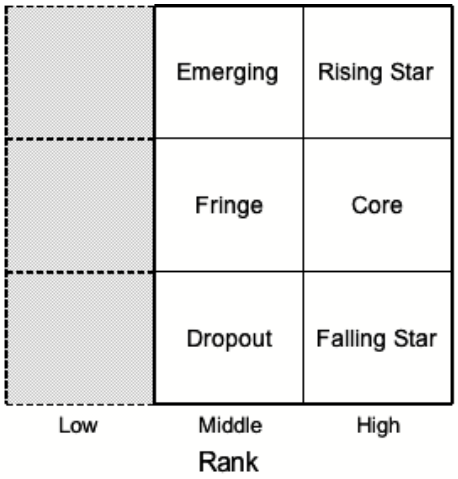

Figure 1. 2-Dimensional Categorization of Weblog Popularity

Table 2. Criteria for Weblog Success Categories

Blog Categories	Classification Criteria (Operational Level)
Rising Star	*Staying inside the A-list with popularity increases > 10 ranks
Core	*Staying inside the A-list with popularity fluctuates <= 10 ranks
Falling Star:	*Staying inside the A-list with popularity decreases > 10 ranks
Emerging	*Moving into the A-list with popularity increases > 10 ranks
Fringe	*Moving in/out-side of the A-list with popularity bounces between 100 +/- 10 ranks
Dropout	*Moving outside of the A-list with popularity decreases > 10 ranks

*Within the 3-month observation period.

3.3.2 Distribution of Weblogs Among Categories

The 126 A-list weblogs were then assigned to one of the six weblog success categories following the classification criteria of Table 2. The largest group was those weblogs whose ranking scores remained constant, namely the *Core* group (38 blogs, or 30% of the sample), followed by 29 (23%) popular weblogs whose popularity was dropping during the evaluation period, our *Falling Stars*.

A review of the results in Table 3 indicates two issues, namely that transition between *high* and *middle* popularity is more likely than might be assumed, and that it is easier to lose

popularity than to gain it. Within our sample, less than 60% (30% + 23% + 5%) of weblogs remained on the A-list for the entire time, while 42% moved in and out of the list. This fact differs from the conventional wisdom which states that weblog popularity remains highly stable, i.e., follows an 80/20 rule [e.g., Shirky, 2003]. Thus, breaking into the top-100 is possible, even if the *powerlaw* suggests otherwise. In our sample, "losers" exceeded "gainers" almost 2:1. While 18% of the sampled weblogs increased in popularity, 32% lost and 50% remain unchanged in popularity.

Table 3. Distribution of Different Weblog Success Categories

Blog Categories	Blog Count	%	Aggregated Rank Distribution		Growth Distribution		
			High	Middle	Positive	Neutral	Negative
Core	38	30%	√			√	
Falling Star	29	23%	√				√
Fringe	25	20%		√		√	
Emerging	17	13%		√	√		
Dropout	11	9%		√			√
Rising Star	6	5%	√		√		
Total	126	100%	58%	42%	18%	50%	32%

While these summary statistics reveal some interesting insights about weblog popularity, they do not yet reveal any technology-based impacts. Hence we will look next at the role of technology for blogging and weblog success.

3.4 Generations of Blogging Tools and Technology Features

As explained earlier, most weblogs are built by some sort of blogging tools, whether supported by a host, a standalone software vendor, or a self-developed application. Blogging tools differ in their capabilities from first generation (basic publishing and linking only) to third generation, with enhanced content management, community features, rich interfaces, and integrated applications. For this exploratory study, we decided to look for any relationships between *popularity* ("weblog success categories") and *technology* ("blogging tool generations"). To do so, we classified the blogging tools used by the 126 A-list weblogs in our sample into different generations based on their key technology features identified below:

- **First Generation (1G)**
  - Presentation weblog (text diary, external links)
- **Second Generation (2G)**
  - *First generation*, plus
  - Improved user interface for weblog presentation
  - Connectivity features (e.g., "blogroll")
  - Content management features (e.g., indexed archive, search, "permalink", categorization, "trackback", syndication)
- **Third Generation (3G)**
  - *Second generation*, plus
  - Improved content distribution and connectivity features (e.g., "breadcrumbs", "pingback", alert of other weblogs' new posts)
  - Application features (e.g., workflow or project management, polls, IntraSite messaging, Web invitation)

Two experienced bloggers were involved in the coding, the first author and a research assistant. Each weblog in the A-list was carefully examined and assigned to one of the three tool generations until both raters reached 100% agreement[1]. As shown in Table 4, most of the weblogs in our sample used Movable Type (2.x or 3.x), a popular standalone blogging software, currently providing second generation capabilities. The next largest group of weblogs used various self-developed tools. More than 20% of the weblogs observed fell into this category, most of them deploying second generation technology. Blogger and ModBlog, two very popular weblog hosting services, were next in terms of popularity, each accounting for more than 10% of the sampled weblogs. The rest of the tools each accounted for much less. This overview suggests that leading weblogs draw less on hosted solutions, but instead use predominantly self-hosted third-party software or even self-developed software.

Table 4. Use Index of Blogging Tools

Blog Tools	Blog Generations	Blog Count	%
Movable Type	2G	31	24.6%
Self Developed Tools	1G	6	20.6%
	2G	17	
	3G	3	
Blogger	2G	15	11.9%
ModBlog	3G	14	11.1%
WordPress	2G	9	7.1%
(Manila/Radio) Userland	2G	5	4.0%
b2evolution	2G	3	2.4%
BlogDrive	2G	3	2.4%
CityDesk	1G	2	1.6%
Cyberz Inc.	2G	2	1.6%
Scoop	2G	2	1.6%
NuclearCMS	2G	1	0.8%
Other tools	2G	12	10.3%
	3G	1	
Total		126	100.0%

In total, 8 of the sampled weblogs used 1G blogging tools, 100 used 2G tools, and 18 used 3G tools. This demonstrates that successful bloggers have moved on from predominantly text-based diaries to solutions with better user interfaces and more community features. The question yet to be answered is whether within the entire sample, there is a significant relationship between technology (generation) and weblog success.

4. Blogging Tools and Weblog Success

To find out whether technology plays a role in weblog success factors, we performed a *Chi-square* test of the two categorical variables: blog category ("weblog success category"), and blog generation ("blogging tool generation"). The chi-square p-value = 0.000, reflects a high level of statistical significance, while *Cramer's V* value = 0.421 (greater than 0.30) further suggests that tool generation differences have a strong effect on different weblog success categories. Moreover, from Figure 2, we can observe that *Rising Stars* and *Emerging*

[1] In the first-round, the two raters independently placed 120 (out of 126) weblogs in the same way (an agreement rate of more than 95%). Then, both raters re-rated the remaining 6 disputable weblogs together, and as a result, they reached 100% consensus.

weblogs, the two weblog categories with an increase in popularity during the evaluation period, use both 3G and 2G *Blog Generations*. Five out of 6 *Rising Stars* used 3G tools (group "generation" average score = 2.83, when 1G = 1, 2G = 2 and 3G = 3), and 6 out of 17 *Emerging* weblogs used 3G tools (group "generation" average score = 2.35), while none of the *Drop Out* weblogs (whose popularity dropped out from Technorati's top-100 list and had never came up during the entire evaluation period) used 3G, but only 1G or 2G blogging tools (group "generation" average score = 1.91).

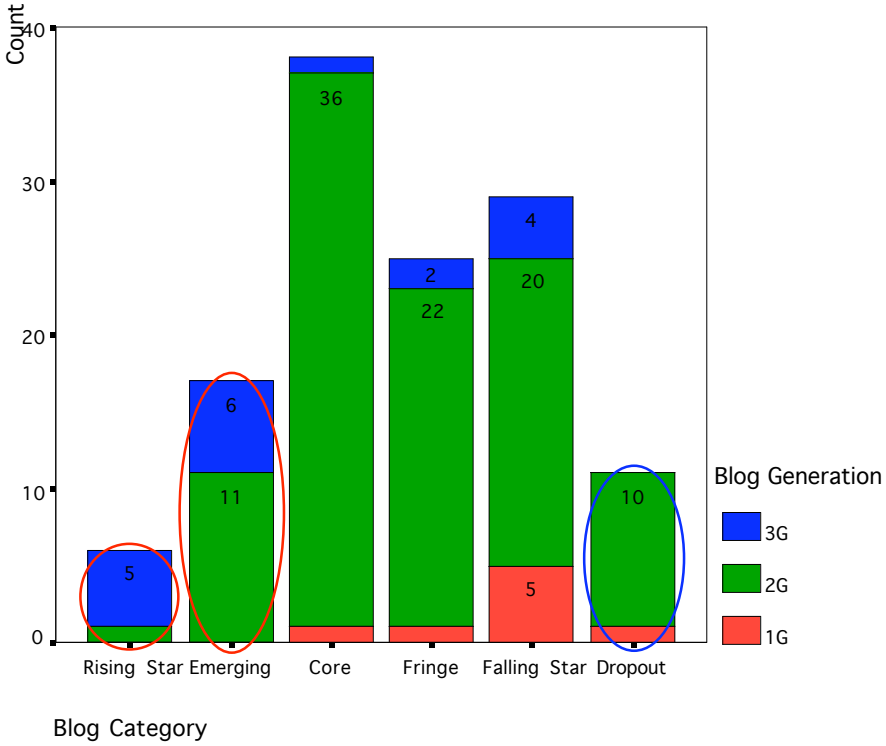

Figure 2. Stacked Bar Chart of Weblog Category Versus Generation

Why would technology differences, in this case blogging tool generations, make a difference in weblog success? After all, weblogs should be first and foremost content delivery mechanisms. However, we conjecture that technology can provide direct advantages to content creation and delivery, as well as to creating better connectivity between authors and readers. Drawing from our preliminary findings of the positive and significant relationship between blogging technology and weblog success, our weblog success model is presented in the next section based on *weblog value proposition*.

5. Conceptual Framework: Weblog Value Proposition

Our exploratory findings concerning the role of technology in weblog popularity lead us the definition of the research model shown in Figure 3. The model postulates that weblog success (popularity rank and popularity growth) depends on the ability of the weblog to create value for its users or readers ("weblog value proposition"). A weblog's value will be determined based on multiple factors. Some of the factors will be interface factors, namely the "look and feel", that is, the way information is rendered on the weblog page, the presentation and organization of information, and so forth. Another important part of a weblog's value is its built-in capability for readers to participate through commentaries, polls or other similar features, summarized in our model as interactivity of the weblog. Differ from a static Web page, weblog's interactivity adds new value to the traditional form of a Web page (Blood 2004). As a result, these factors of the weblog value, directly supported by

blogging tools, affect the accessibility of weblogs and their potential to spread (Bauer 2004, Blood 2004, Wagner 2004). Yet, the weblog content, the information itself, is obviously another key aspect of a weblog's value, like any other forms of Web content. Another important aspect and a rather distinct value driver, is the existing community of a weblog, or a list of frequently inter-connected weblogs, such as blogroll or blog friends. Readers would be expected to prefer a weblog that is read (or trusted) by many other readers, or celebrity bloggers (Shirky 2003, Wagner et al. 2005). Furthermore, a widely read weblog may build social capital, and hence increases the value of a weblog. In addition to interface, interactivity, content, and community, there are other factors that may also increase a weblog's value in order to be successful. For instance, some weblogs are widely read because they co-exist with popular blogging tools and serve as a communication medium about the technology. Hence, weblog readers may be interested in the value of the technology, and are drawn to the weblog as a communication medium allowing them to obtain information about the technology. We call this "other blog value".

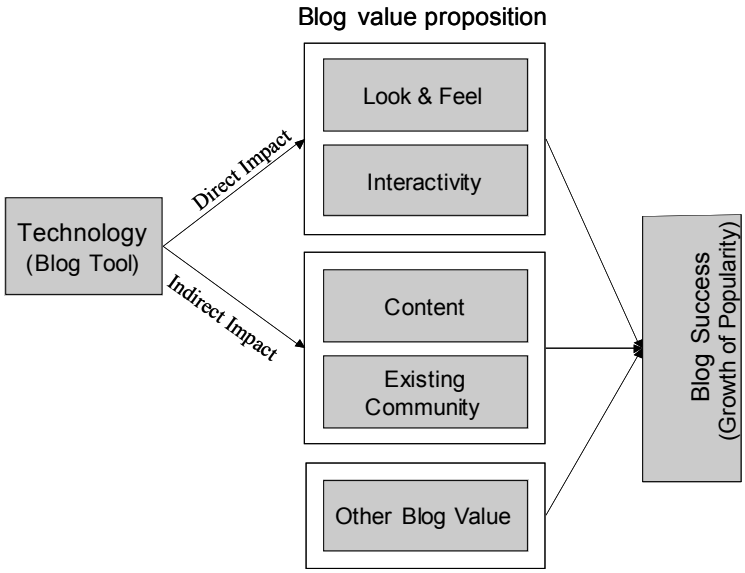

Figure 3. Research Framework

Clearly, weblog-building technology has a direct impact on user interface characteristics and blogger-to-blogger interactive capability. The relationship between content and technology is less direct. However, weblogs are designed to reduce Web publication effort from authors (Du and Wagner 2005). By using blogging technology, authors can focus on writing, while the technology takes care of storage, publishing, link creation and so forth. The less time and effort authors have to spend on these ancillary tasks, the more time they should be able to devote to content, thus resulting eventually in better content. A similar argument can be made for community. Weblog technology that automates link creation, that identifies recent visitors (possibly with clickable back links, such as in ModBlog), or maintains subscriber lists and syndicates their content, will help create and maintain communities, by significantly lowering the effort to link to and visit other sites. "Other blog value" can be created by many factors, which do not require any particular blogging technology. The model in Figure 3, therefore, does not show any arrow between technology and "other blog value".

6. Implications and Further Research

This exploratory study provided a snapshot of the current state of an evolving Web technology enabled word-of-mouth phenomenon. It has potentially significant implications for the world of weblogs, as well as the rest of the world that has been deeply impacted by the

rise of this new phenomenon. For instance, if bloggers could improve their weblogs' readership popularity, independent of content, by choosing technologies that foster participation and community interactivity, especially inbound linking, then we should see a considerable growth in such 3G weblogs.

At the same time, once weblog aggregators, such as Technorati, find out that their success measures can be easily "gamed" by technologies that foster easy and rapid inbound linking, they may have to change ranking criteria so as to produce a better reflection of "true" popularity. After all, if inbound linking changes from a conscious, effort-requiring activity, to an almost automatic activity, then its meaning and significance changes.

Consequently, this research identifies numerous areas for further exploration. We can only outline some of them here. First, one might explore the technology-popularity link in more detail to determine which particular technology features are influencing popularity the most. Second, one might wish to observe the technology-popularity relationship when other popularity measures are used. Third, one might wish to explore longer-term popularity developments, to see whether popularity based on technology is only "skin deep".

Aside from these research questions, the research also has implications for the design of future weblogs and blogging tools. As suggested in this study, technology features have an impact on the ability of a weblog to create popularity and to nurture communities around them. Weblog hosts and software developers should take advantage of this opportunity. Especially, they should seek to enable their weblogs to receive external inbound links, a step forward from the traditionally "closed" tools, such as ModBlog or Xanga, which allow automatic linking (subscriptions or friends lists) only between members (using the same Xanga or ModBlog technology).

Overall, we view this research as a starting point from which to challenge some existing notions on weblog success and the potential of joining the "A-list" of most popular weblogs, while also highlighting the importance of technology in promoting weblog success. Our findings concerning the popularity growth of weblogs with 3G technology also suggest that future weblog popularity growth may be determined more by their embedded applications and ability to interact with circles of friends, than by the written content that created the interest in the earlier years of weblogs.

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