



CIRCLABS INC.

Detailed Description of Circlabs and Circulate™

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circu-late (sər-kyə-lāt) *intransitive verb* — **1:** to follow a circular path or circuit **2:** to move around from person to person or group to group at a social gathering **3:** to flow or move around freely and without obstruction **4:** to disseminate, disperse or become well-known or widespread *transitive verb* — to cause to move about or be distributed

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1. Executive Summary

Newspapers and other online publishers seek solutions to the problem that their online content yields insufficient revenue. As a result, they are exploring ways to obtain payments for content from readers. Meanwhile, Web users are looking for convenient access to trustworthy information that meets their personal needs.

Circulate™, the first service of CircLabs Inc., is a news discovery and social network that is focused on meeting the needs of both consumers and publishers. It's a solution that enables payments from readers but goes well beyond pay walls to create greater engagement with media brands. Circulate shifts power from news aggregators by facilitating relationships directly between consumers and publishers of authoritative information.

At the end of July, CircLabs received seed funding from The Associated Press. The strategic partnership aims to provide member newspapers with a mechanism for distributing journalistic content that does not depend on search engines.

Circulate may be likened to a hyperpersonalized news stream that's more user-friendly than RSS and more convenient than Google Reader. It works via a browser add-on that incrementally learns a user's demographics, interests and preferences while respecting user privacy. It places a small, expandable bar across the top of the user's screen (the Circulate Bar), in which it delivers content recommendations and advertising relevant to the user's profile. Circulate also enables social interactions and can be upgraded over time with a wide variety of icon-accessible applications. Users surveyed have repeatedly said they would use such a service that brings content they care about to them.

CircLabs is partnering with local news publishers to market Circulate and therefore anticipates the ability to promote widely and deploy rapidly. Unlike paid-content solutions that require extensive technology integration with publisher Web sites, Circulate requires no such work. Circulate has been designed to make it as easy and affordable as possible for publishers to grow their revenues.

Because Circulate travels with users (at their option), wherever they go online, it has the potential to drive significant traffic to participating Web sites, and to share with participating publishers revenue from targeted advertising served during 100 percent of a user's time online, rather than the less than 1 percent of Web user time actually spent at newspaper sites.¹ It also exposes the user's "home base" newspaper brand wherever the user travels online. Besides the Circulate Bar, CircLabs also plans deployment of its platform via smartphones and as a start page, and to provide e-mail and text message alert services.

At CircLabs, we are focused on developing a modern user experience that provides value and convenience that consumers will pay for. We believe that the potential revenue from targeted, high-value advertising will exceed that from any paid-content model for some time to come. As such, Circulate is designed to greatly boost advertising revenue. At the same time, it is important for publishers to be experimenting with paid-content models now. Thus we have incorporated a variety of approaches to paid-content into our product specification. Over time, and especially as

publishers adjust to produce more unique content, the potential for pay models will increase. Meanwhile, CircLabs will facilitate the experimentation necessary for the industry to evolve.

¹ Total U.S. Web user time spent online, June 2009: 7.9 billion hours; total time spent at newspaper Web site: 45,022,485 hours. All data from Nielsen Online; newspaper data from Nielsen Online via Newspaper Association of America. (See: http://www.nielsen-online.com/pr/pr_090713.pdf. See also: <http://www.niemanlab.org/2009/08/naanielsen-stats-show-newspapers-own-less-than-1-percent-of-u-s-online-audience-page-views-time-spent/>)

2. Company Profile

CircLabs Inc. is a for-profit Delaware C corporation, based in Palo Alto, California. The company was incubated at the Donald W. Reynolds Journalism Institute (RJI) at the University of Missouri in collaboration with Bill Densmore, a Reynolds Fellow for the 2008-2009 academic year.

CircLabs has significant support from The Associated Press, which has invested in the company and contributed technical collaboration and access to its database during the development and testing phase. The strategic partnership aims to provide member newspapers with a user-centric mechanism for distributing journalistic content that both increases user engagement and does not depend on referrals from search engines.

Along with Densmore, three entrepreneurs with experience in journalism, publishing and technology are co-founders of CircLabs: Jeff Vander Clute, Martin Langeveld and Joe Bergeron (see bios attached as Appendix A).

CircLabs has received incubation funding from RJI, has raised approximately \$750,000 in funding from industry sources and private individuals, and has begun the process of raising a much larger round of funding to coincide with the launch of Circulate in the first quarter of 2010.

3. Product Description

Circulate is being built now in response to the needs of publishers, and we invite publisher collaboration and feedback. As such, the details of the implementation described below, as well as deployment and future enhancements, may be revised to better meet publishers' needs.

See Appendix B for illustrations of use cases and schematic visuals.

- a. Marketing: Circulate will be marketed to the public in conjunction with our publisher partners. Partnership agreements will specify the volume and frequency of promotion that publishers will provide in their publications, on their Web sites, and by other means at publishers' option. CircLabs will create marketing campaigns that include promotion of Circulate in print, on Web sites, in search advertising, on social media, radio, television, cable, outdoor and direct mail. The intention of this marketing campaign is for consumers to learn about Circulate via their preferred local newspaper, which we refer to as the "home-base newspaper." The campaign can include a strip atop the publisher's Web site

similar in appearance to the Circulate Bar, as a “teaser” for the service (see [Appendix B](#), diagram 3).

- b. Installation: Consumers will go to a designated Circulate Web site (potentially referred there via the site of their home-base newspaper) and will download software that self-installs the Circulate Bar into their browser. We anticipate being able to install Circulate within multiple versions of Internet Explorer, Firefox, Safari and Chrome.
- c. Profile: Upon installation, Circulate queries the consumer for some basic demographic information (age, gender, location), and asks whether the consumer has any content preferences for Circulate to take into account when recommending content. Consumers will be able to link with their Facebook and other social-networking accounts in order to quickly populate their Circulate profiles.
- d. Appearance: The Circulate Bar then appears in the consumer’s browser window — not as part of the browser frame, but in the content area, as a narrow band across the top (see [Appendix B](#)). Within the bar, the consumer will see a Circulate brand icon, one or more content recommendations or alerts, and the brand logo or icon of their home-base publisher (for example, a newspaper logo). As well, there will be words or icons linking to the consumer’s profile, social interactivity resources, and other functionality. The home-base logo or icon is always hyperlinked to the Web site of the home-base publisher. The appearance of the underlying page is not altered, but it is pushed down in the browser window by the depth of the bar.
- e. Control: The Circulate Bar remains in this space as long as the consumer wishes it to be there. The consumer will have the ability to control Circulate’s appearance by turning it off, or by having it appear only at certain intervals. By default, the bar is always visible and provides a stream of content recommendations based on the consumer’s expressed preferences and demographics. If the user prefers, Circulate will appear periodically with notifications of newly available content. In both cases, Circulate is always on and ready to engage the user.
- f. Content recommendations: Content recommendation links in the bar will be derived, initially, from the Associated Press Exchange database. The AP database is ideally-suited for this purpose because it is robustly keyworded and indexed, facilitating the matching of content with consumer preferences. Over time, additional content sources, including other newspaper content, will be added to Circulate’s content resources. Circulate will not be limited to newspaper content; after initial deployment via newspaper partners, it will expand to include high-quality material from content creators and owners such as magazines, public broadcasters, cable networks, online news publishers and content archives. Because CircLabs is driven by a vision of sustaining quality journalism, and is backed by the oldest and largest journalism school in the U.S., it will maintain an overall focus on journalistic content, broadly defined.
- g. Preferred content: Circulate’s recommendations will give preference to the content of participating publishers, and the content recommendations served to individual consumers will give preference to their home-base publishers. This will be done by means of weighting algorithms but will also result from the consumer’s expressed preferences and demographics which will tend to include preferences for local content.

- h. Profile enhancement: Over time, Circulate will “learn” more about the consumer and will build a more detailed profile. It can do this in part from analysis of the consumer’s browser activity, but also by occasionally requesting additional information from the user. For example, it may ask whether a certain interest or preference should be added to the profile, based on sites the consumer has recently visited. Consumers can also access their profile and add, delete or modify information as they wish in order to receive improved recommendations or to reflect changes in their interests over time.
- i. Privacy: Consumers will have strict, absolute control over the personal information that is gathered by Circulate both as expressed demographics, interest and preferences, and as assumed interests derived from browser activity. Consumers will have the options to: (a) download Circulate and share no information with it; (b) instruct Circulate not to monitor browser activity; (c) access and review their profile information at any time, and (d) modify or delete any or all of their profile information at any time. CircLabs will not share user-identifiable profile information at any time with any third parties, including publisher partners, without the consumer’s express permission.
- j. Premium content: Circulate will be able to recommend premium content to consumers, and enable access to it, in various ways. CircLabs anticipates working with publishers directly to discover the best ways of doing this. It will also conduct surveys of consumers and analyze consumer behavior during its beta deployment phase, anticipated in the fall of 2009. Circulate will incorporate the following payment-related features:
- A system of registering consumers for access to individual publisher sites or groups of sites
 - A transaction system to receive payments
 - A subscription fulfillment mechanism to control access to content accessible by subscription only
 - A system for controlling access to content accessible on a per-item basis
 - A microaccounting system to track payments due to various content providers
 - A means to structure “mixed access” — in which readers are encouraged to register and are granted access to a pre-set number of pages before being required to pay for additional access
 - A means to structure tiered pricing, in which a variety of price levels enable access to premium content, including niche content that has high value to limited numbers of consumers
 - Reverse payments, in which “the meter runs backward” — small payments or credits to consumers, which they earn through various interactive engagements such as participating in a survey or watching an advertiser video
- k. Bar expansion: At times, when the consumer indicates interest in a recommendation or question delivered by the Circulate Bar, the bar may expand to a greater depth to show additional content and features (see Appendix B), including:
- Multiple content recommendations or an expanded content description

- Social networking features including conversations on the topic being recommended, as well as the ability to comment on the topic or send links to friends.
 - More prominent contextual advertising with interactive potential. (See Advertising, below.) Interactivity with advertising may include: expand the ad to a larger view, participate in a survey, watch a video, sign up for an e-mail list, request more information, or make a purchase. Because the consumer has already expanded the bar as an indication of interest, this advertising position will be a high-response, high-value proposition engaging consumers at a particularly receptive moment.
 - As usual the home-base publisher brand and other standard Circulate Bar features remain in place during expansion of the bar.
- l. Additional platforms: After consumer deployment of Circulate as a browser add-on, CirCLabs plans to build versions for deployment as smartphone apps, as a browser start page and in the form of e-mail and text-message alerts.
- m. Enhancements: The Circulate Bar, in theory, is infinitely enhanceable. Once installed, like other forms of downloaded software, the bar may be updated from time to time with additional features. Some updates may be automatic while others will be available at the consumer's option. The latter category can include icon-accessible applications similar to smartphone apps, which consumers can choose from a menu and add to their Circulate Bar. Expansion functionality may include such things as:
- Per-item purchases of music, videos, games, merchandise, etc.
 - Access to contribution-model functions such as Kachingle
 - Search
 - Games

See also the future data-transmission feature described below under Advertising.

- n. Advertising: While CirCLabs may not include extensive advertising on the Circulate Bar when first launched, we plan to expand advertising opportunities once Circulate has a sufficient base of active users. The basic ad message on the unexpanded bar will likely be a text message, while the bar in expanded mode will accommodate larger, banner-style ads with interactive features (as described above in Bar expansion.) Publisher partners will have the opportunity to sell advertising, with advertisers specifying their demographic and geographic targets. As well, CirCLabs will sell, or partner with companies that sell, targeted advertising on the Circulate Bar. All advertising revenue will be shared with participating publishers, through a formula that favors publishers, all the more so in the case of locally-sold advertising. In a future stage, Circulate also plans to develop the ability to transmit data to enable targeting on partner sites (subject to privacy requirements), so that partner publishers can benefit from the same preference-targeting ad capabilities offered within the Circulate Bar. (See Appendix C for projections of publisher share of advertising revenue.)
- o. Affiliate marketing and lead generation: In its advertising space Circulate may also display messages that can generate revenue through affiliate marketing and lead-generation programs. Such revenue will be shared favorably with publisher partners as well.

- p. Zero required technical integration: For initial deployment through any participating publisher, no technical integration is necessary, and Circulate can operate indefinitely without technical work on the publisher's part, although this may limit some subscription and per-item payment functionality. Beyond this, very simple code added to the publisher's Web site can add a Circulate promotion that efficiently draws in users who are not yet Circulate-enabled. If the publisher desires to connect Circulate directly with the publisher's existing registration and accounting systems, that will require integration. However, Circulate will function perfectly well without such integration.

Publishers of news, information or other content online face the challenge of getting paid for what they offer on their sites — through advertising, subscriptions, à la carte pricing or other revenue streams. Circulate addresses this challenge with a game-changing solution to help publishers earn more revenue from their online content:

- Local branding: Circulate appears on the browser with the online brand of the participating local news enterprise through which the user registered for the service. This serves to strengthen awareness of the publisher's valuable local news brand.
- Increased high-value traffic to publisher sites: Because Circulate travels with users wherever they go online, the service is always ready to recommend relevant content to them. So users are presented with links to publisher sites not just when they search for such content, or visit sites through their bookmarks, or find content on aggregation sites. With Circulate, consumers may be sent links to the publisher's valuable, original content no matter where they are on the Web. Visitors coming to publisher sites through Circulate will be high-value visitors, and added high-value traffic means incremental revenue.
- Local advertising on Circulate: Circulate will be a powerful platform for local advertising sold by participating publishers. It will deliver Web users to relevant content whenever they are online. That means that local advertisers can deliver high-value, narrowly targeted messages. These messages will produce quick responses, build long-lasting relationships and enable social interactivity between customers and advertisers.
- Subscription revenue: Circulate can adapt to any payment model, at the publisher's discretion. This includes individual newspaper content subscriptions, per-item sales, multi-publisher "passport" subscriptions, "mixed access" subscriptions with metered free page views before charges apply and tiered pricing arrangements.
- Per-item revenue: Also at the publisher's option, some content can be made available on a per-item basis. This may include current content as well as archive content, which is now accessible only by search and often at prohibitively high prices. Circulate can recommend archive content — and deliver it with one-click convenience — driving up demand for such content. Higher demand for archive content will allow it to be sold at a more attractive price point or with an advertising revenue-sharing arrangement.
- Circulate and commerce: As Circulate is adopted widely, Circulate may — as a clearly differentiated commercial service — recommend products and services along with news and information. Because users will have learned to trust the system to make useful content recommendations, many will choose to accept commercial content recommendations as well, with a priority on interactive content such as surveys, videos,

coupons, affiliate marketing and lead generation. Circulate's permission-based preference targeting can provide affiliate and lead-generation commissions shared with publishers.

4. Product Capabilities

The following are descriptions of CircLabs' ability to create, modify and support technology to enable the capabilities being asked for by the newspaper industry:

- Accept or retrieve content from participating newspapers/media companies: Yes. Circulate is already integrating with the Associated Press Exchange database and its associated APIs. Circulate is also developing RSS/Atom and site-scraping capabilities for partner sites. Additionally, see our answer below regarding industry-standard content formats.
- Manage single sign-on that allows consumers to navigate across participating media company Web sites: Yes. Circulate is developing an SSO solution that is built upon widely used industry approaches like CAS and Shibboleth. Plug-ins will enable the inclusion of partner sites' existing login capabilities.
 - Partner "ownership" of customers and their data is also a part of our planning. Circulate is prepared to respect and maintain customer "home base" relationships. Continuing and extending that trust relationship is key.
 - Circulate is developing the capabilities necessary to welcome and integrate user logins and preferences data from all major identity providers (Facebook, MySpace, Google, Yahoo, Microsoft, Wordpress, OpenID/OAuth, etc.).
- Process content in industry standard formats for news (NITF, NewsML2): Yes. Support for industry standard news formats will be developed in step with our partners. We are currently working with AP NITF XML and plan to adopt NewsML and other standards as partners require. Circulate intends to consume and make available all formats that partners desire to send through to customers.
- Track proper source of original content: Yes. CircLabs is developing micro-accounting capabilities for impressions of individual bites of content. In the case of The AP, we have the source built into our data feed. In other cases, we are working to ensure that attribution and accounting is dependable and complete.
- Manage and protect intellectual property rights of content: Yes, to the extent possible by leveraging user login and micro-accounting techniques. Data traffic between entities (and within our servers) may be encrypted/authenticated. We are not, however, making any attempts to develop novel digital rights management or other technology/IP-based solutions.
- Provide effective and efficient browser based user interface: Yes. Circulate is developing a browser-based user interface that enables both "always-on" functionality via browser add-ons and JavaScript-include approaches. A key strength of the add-on is that Circulate can facilitate a greatly enhanced user experience even if sites do zero technical integration. The JavaScript-include approach requires only a minute amount of technical integration and significantly enhances sites that also adopt this approach. The value-add of the JavaScript approach relative to the browser add-on is that it facilitates the Circulate user experience

without any installation on the part of the end user. Circulate offers a consistent user experience that fits a variety of situations: with or without add-on installation, and with or without publisher site integration.

- Provide appropriate database technology for content management: Yes. All content databases/queues will be protected via all appropriate industry measures and built to “web scale.” Protection measures will include multiple levels of firewalls, monitoring, access logging and limiting access to a small set of authorized administrators. All of these measures are in line with the rigorous approaches exercised by the payments industry (but applied to content management). Database technologies used will also suit the purpose of scaling horizontally to many millions of concurrent users. Sharding, redundancy, caching and purpose-built tools will be deployed where appropriate.
- Manage a variety of transactional capabilities (e.g. micropayments, subscriptions, etc.) based on a range of criteria (e.g. existing subscriber or member, number of pages viewed or stories accessed previously, etc.): Yes. Again, leveraging user logins, preferences and microaccounting, we are planning to provide a variety of transactional capabilities. This includes “freemium,” premium packaging/customization and other capabilities. What we offer depends first and foremost on our partners’ wishes. We do not strongly espouse any particular solution and firmly believe that we need a platform that enables experimentation. We also do not need/want to own the entire transactional chain. We are openly seeking partnership possibilities for certain functionalities. And, for payment processing capabilities (including subscription management) we are working with payments processing industry leaders.
- Communicate with banks using standard formats (please include capabilities to accept credit card information, process transactions, reconcile payments, etc.): Yes. Our payment processing partners support both domestic and international processing of credit, debit and ACH payments. Our partners also support subscription/recurring billing capabilities through those payment mechanisms. We are also exploring partnerships with broad-based alternative payment providers (Facebook, Amazon, PayPal, etc.).
- Provide PCI compliant customer information protection: Yes. Our operating environment will be PCI/CISP compliant. In addition, we will not store customer payment information ourselves. Our payment processing partners will manage payments data storage and security (especially important in the case of recurring payments management).
- Provide an information barter environment with appropriate privacy and other protections (i.e. access to content in exchange for more detailed user info): Yes. Respectful, transparent and deep preference management capabilities for customers is a major part of Circulate’s core functionality. We believe strongly that consumers are willing to offer targeting data in exchange for personalization. All customer data will be protected according to the most stringent requirements (including the extra-stringent requirements in place in the European Union).
- Provide simple customer registration/logon process: Yes. Circulate allows sign-in via multiple social IDs and with permission can import user profile data. See also Manage single sign-on... above.
- Tie a customer and their information to a particular newspaper (their home paper): Yes.

Circulate's "home-base" newspaper branding carries over into all data storage being tied to that particular newspaper. The trust relationship, established payments relationship and needs of our newspaper partners are top priorities for CircLabs.

- Provide references to relevant content from participating newspapers: Yes. Delivering content relevant to a user's expressed profile demographics, interests and preferences is the very core of Circulate. It will do this, initially, by finding content in the Associated Press Exchange database, which includes most content from most member newspapers, and matching that content to users based on their profile data and browsing path, subject to user permission.
- Provide design with advertising positions: Yes. As described in the Product Description section above, the Circulate Bar will have space for profile-targeted advertising. Ads on Circulate can be sold on a national basis or locally by individual participating newspapers.
- Include AdsML based e-commerce: Not applicable. CircLabs currently has no plans to develop an advertising network of its own. We are a platform for gathering user preferences, offering something in return and delivering a consistent user experience that does facilitate ads and payments. CircLabs is working to partner and become a customer of ad networks capable of the targeting that we enable.

5. Planned Enhancements & Timetable

The target timeline for the development of Circulate is as follows:

Dec. 2008 - June 2009:	Conceptual work on Circulate at University of Missouri's Donald W. Reynolds Journalism Institute
June 16, 2009:	CircLabs, Inc. is incorporated.
July 1, 2009:	Software development begins.
July 1, 2009:	Marketing to newspaper publishers begins.
Aug. 1, 2009:	Completion of seed round funding
July-Oct. 2009:	Collaboration with publisher partners in design of product, consumer marketing and beta testing
Nov.-Jan. 2009:	Beta testing and refinement of Circulate product software
Q1 2010:	Initial consumer rollout via newspaper publisher partners

Planned enhancements: As laid out in Section 3, Product Description, above, CircLabs envisions a basic deployment in early 2010, with staged enhancements approximately as follows:

Jan. 2010:	Deployment of Circulate with publisher branding, content recommendations, social functionality, and transactional capability for subscriptions and per-item content payments
April 2010:	Addition of basic contextual advertising to the Circulate Bar, including the option for local publisher advertising sales

July 2010: Addition of expanded, interactive advertising features

Sept. 2010: Addition of affiliate-marketing and lead-generation revenue streams

Sept. 2010 – Dec. 2011: Addition of various further enhancements (described above in Section 3(m), Enhancements), potentially including user-selected, icon-accessible applications like search, games, contributions and purchases

Appendix A: Bios of Circlabs Principals

Jeff Vander Clute, President

Jeff is an Internet social-networking and database engineer and business-development executive. He has written software for Web 1.0, 2.0 and 3.0, and has extensive experience with search engines, large-scale databases and other technologies fundamental to media. Jeff is a consultant to the Donald W. Reynolds Journalism Institute at the Missouri School of Journalism and technology lead on its Information Valet Project. He co-founded Avano, Inc., where he developed several notable social media and social networking applications. His background also includes work as principal developer of one of the Internet's first mass-market social media sites, Tripod; global operations manager of international business development for Lycos products; and VP of information systems of Eziba, an e-commerce site that sold fair-trade craft objects in partnership with Amazon.com. Jeff graduated summa cum laude from Williams College with a B.A. degree in mathematics.

Martin Langeveld, Executive Vice President

Martin spent 30 years in the newspaper business, 13 of them as publisher at The Berkshire Eagle in Pittsfield, Mass., the Transcript in North Adams, Mass. and the Reformer in Brattleboro, Vt. He also was executive vice president and director of interactive media for New England Newspapers, Inc., a four-daily cluster which is part of Denver-based MediaNews Group Inc. Along the way, he handled a number of mergers, acquisitions and sales of newspapers; led strategic planning teams; and led the launch, development and transformation of a variety of newspaper products. Martin has served on a variety of non-profit boards, as director and treasurer of the Massachusetts Newspaper Publishers Association, and as a board member of the National Newspaper Association. He is a graduate of Massachusetts Institute of Technology and has a graduate degree from the Cornell School of Hotel Administration. (He and his wife ran a country inn in the Berkshires for several years in the 1970s, but they “got it out of their systems once Martin smelled printer's ink.”) He left the Reformer in April, 2008 to focus on opportunities in new media, and launched his blog, News After Newspapers, a few months later. He moved his blogging home base to Harvard University's Nieman Journalism Lab in January, 2009.

Joe Bergeron, Vice President, Product Development

Joe's experience spans developing financial transaction processing systems, retail systems, web-based consumer applications and business process infrastructures. Beyond software engineering, Joe has also led team development, strategic partnership, technical sales and brand development efforts. As a member of JAND China, Joe was an advisor and interim manager to technology and retail startups, multinational corporations and non-profits operating in Mainland China. While with JAND, Joe also created gubb (gubb.net), a consumer Web application that helps people manage all kinds of lists online. Gubb was acquired by CrowdFunder, Inc. in 2008. Previously, Joe was a member of the founding management team at Peppercoin, a market-leading payments software company that addressed the “micro” and “small” payment markets. Chockstone, Inc. acquired Peppercoin in 2007. In 2004, Red Herring honored Peppercoin as one of the Top 100

Private Companies and the Massachusetts Institute of Technology (MIT) nominated Joe for the Technology Review 100, an award recognizing “the 100 most remarkable technology innovators under 35.” Joe earned dual degrees from Williams College with research honors in Computer Science and Economics.

Bill Densmore, Co-founder

From September 2008 until May 2009, Bill served as a Reynolds Fellow and has continued as a consultant at the University of Missouri's Donald W. Reynolds Journalism Institute working on The Information Valet Project. He is also director/editor of the Media Giraffe Project at the University of Massachusetts-Amherst, and the New England News Forum. A career journalist, he has been an editor/writer for The Associated Press, for trade publications in business, law and insurance; and has freelanced for general circulation dailies including the Boston Globe. In 1993, after nine years owning and publishing weeklies in Berkshire County, Mass., Bill formed what became Clickshare Service Corp., which provides user registration, authentication and transaction-handling for Internet Web content. Bill has also served as advertising director for a small, group-owned daily; and as an interim director of the not-for-profit Hancock Shaker Village. He has taught and lectured in journalism at Massachusetts College of Liberal Arts, in North Adams, Mass., and was a director of the Action Coalition for Media Education. Densmore Associates develops partner and other business strategies for independent media and print publishers, including newspapers and NewsTrust, an initiative to create a consumer news-recommendation service. Bill holds a bachelor's degree in environmental policy and communications from the University of Massachusetts-Amherst.

Appendix B: Circulate Use Cases & Visuals

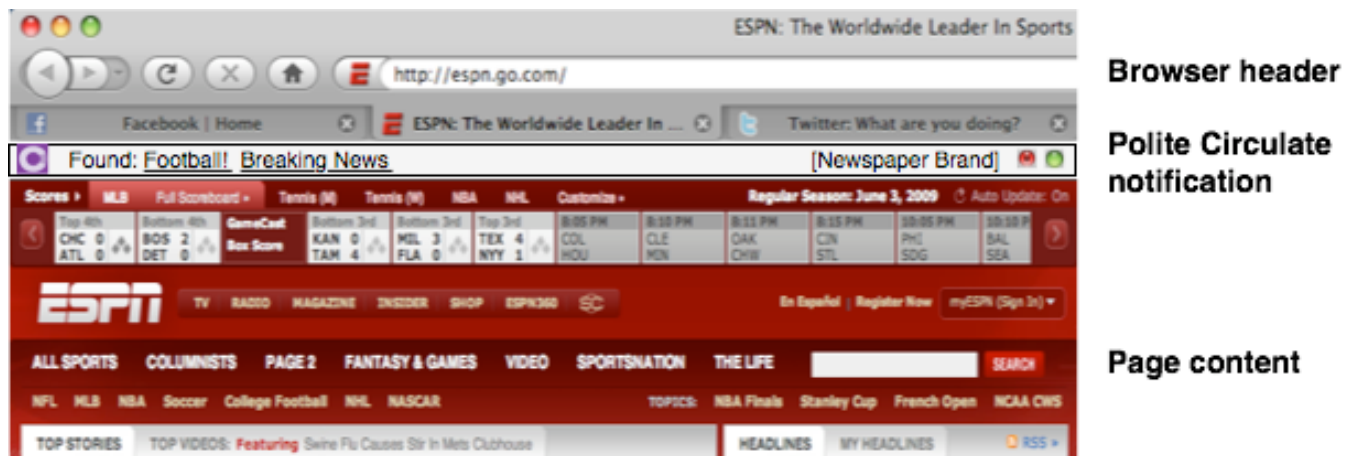
The following diagrams are schematics only. They are not intended to represent the final user interface, which will be professionally designed based on extensive user interface and user experience testing.

John is a fictional divorced 45-year-old print subscriber to the Albany *Times-Union* whose interests include college football and online dating. Most of John's Web browsing is spent on sites such as eHarmony, ESPN.com, and Facebook. Occasionally, he checks for national and international news on CNN.com and for local news on the *Times-Union* Web site. He estimates that about 1-2% of his time is spent on online news sites.

Use Case 1: John responds to an email invitation to Circulate.

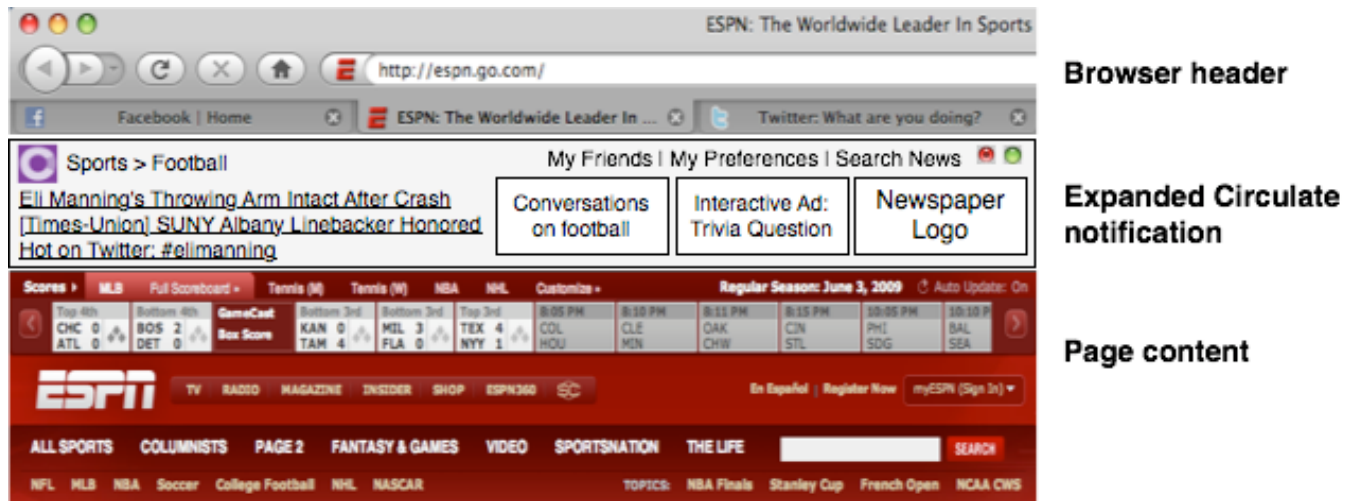
1. John receives an email or letter from the *Times-Union* promoting Circulate, a convenient and free new service that brings authoritative journalism and social interactions to him.
2. He clicks to sign up. While registering for Circulate, he provides a small amount of basic information about himself, namely his gender, age, zip code, and his passion for football.
3. He completes the registration process, at which point a simple browser add-on is installed on his computer.
4. The next time John is on ESPN.com, Circulate discovers in the AP Exchange database a current feature article on a SUNY Albany football player.

Diagram 1: Circulate discovers content.



Circulate notifies John that it has found content for him by inserting a thin bar immediately above the page. If John clicks on the "Football!" link or the green circle, the bar expands to show the content found by Circulate. He may also click the red circle to hide the bar.

Diagram 2: Circulate sends users to newspaper content and interactivity.



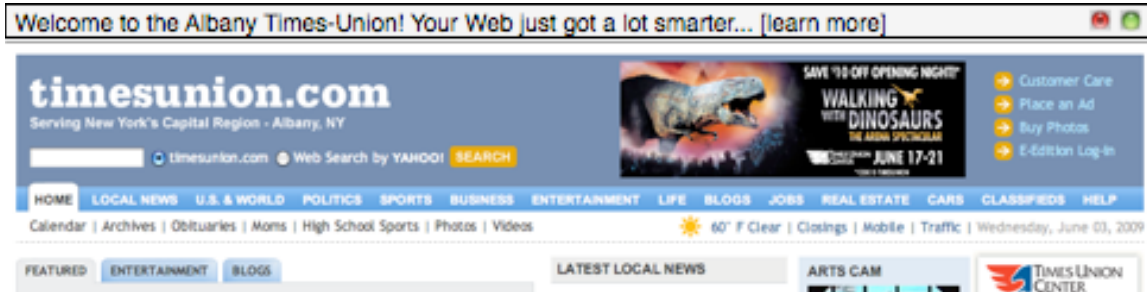
Once John chooses to view the content offered through Circulate, the Circulate Bar expands to show headlines, a link to a trending topic on Twitter, a way to engage in conversations related to football, an interactive advertisement and a logo for the *Times-Union*.

5. A notification appears at the top of the ESPN.com page inviting John to take a look at this piece of local related content matching his stated preferences.
6. He clicks through to the Web site of the *Times-Union*. In the process, Circulate has driven traffic to the *Times-Union*.
7. John reads the article and decides to share it with all of his friends on Facebook via Circulate. He also clicks “Tweet this!” and a link to the article is instantly posted on Twitter under his account.
8. While he is on the *Times-Union* Web site, Circulate takes the opportunity to show John links to related content on *TimesUnion.com*. In the process, Circulate increases the number of page views and the amount of time spent on the Web site.
9. Later, Circulate presents John with links to archived articles on football in the AP Exchange database. This content requires a subscription. John is passionate about football and decides to pay \$3 per month for unlimited access to an archive of all premium-designated content, which is handled through the AP Exchange database.
10. Realizing that Circulate is pretty smart, he decides to add “weddings” to his list of interests. He will be able to remove this later.
11. While killing time on Facebook, John is presented with a notification that his new girlfriend just tweeted about him on Twitter. Along with the notification, he sees an ad for a new dating service.
12. Because Circulate knows a few things about John, it gets paid more money for a click on the dating service than if the ad were on a newspaper Web site. Circulate shares most of this additional revenue with the *Times-Union* to reward the paper for bringing John to the service.

Use Case 2: John sees the Circulate Bar – even though he does not yet have the add-on himself – on a participating publisher’s Web site and decides to sign up.

1. John visits the *Times-Union* Web site and notices an appealing and enticing bar above the page.

Diagram 3: Circulate can be deployed on publisher sites to market itself.



The *Times-Union* is a participating publisher member of Circulate. Upon visiting the Web site, John encounters an appealing and enticing opportunity to sign up for Circulate. Note that he sees the Circulate Bar even though he does not yet have the browser add-on. This is because the *Times-Union* has chosen to include a single line of JavaScript in the master page template (a five-minute integration task), which enables Circulate on TimesUnion.com for everyone. This is particularly helpful in accelerating adoption of the service.

2. John clicks to learn more about how the “Web just got a lot smarter” and is presented with the opportunity to sign up for Circulate.
3. The rest proceeds as in the previous use case.

Appendix C: Projected publisher revenue share

1. How one Circulate user enhances publisher revenue:

- One Circulate user will view 1,800 Circulate-enhanced page views per month (based on 2,400 average monthly at-home page views per U.S. Web user, according to Nielsen Online, with Circulate in “on” status 75% of the time).
- Circulate will make 5,400 content recommendations on those 1,800 page views (3 recommendations, on average, per page).
- This results in 108 incremental publisher page views, producing \$2.16 in incremental publisher revenue (at a 2 percent clickthrough rate and \$20 page CPM).
- Advertising on the Circulate Bar itself yields \$5.40 in publisher revenue (at a CPM of \$5 and a 60 percent publisher share).
- Subscription revenue can add another \$2.40 (if the Circulate user subscribes at \$4 per month, with a 60 percent publisher share).
- Total publisher revenue from the average Circulate Bar user: \$7.80 per month (assuming 10 percent of users become subscribers at \$4/mo.).

2. How Circulate enhances publisher revenue at newspapers of different sizes

These revenue figures are based on the above per-user scenario with 10 percent paid subscription rate, and assume an active Circulate user base equal to 10 percent of paid print circulation:

PAID CIRCULATION	ACTIVE CIRCULATE USERS	ANNUAL PUBLISHER REVENUE
10,000	1,000	\$93,600
20,000	2,000	\$187,200
30,000	3,000	\$280,800
50,000	5,000	\$468,000
75,000	7,500	\$702,000
100,000	10,000	\$936,000
150,000	15,000	\$1,404,000
200,000	20,000	\$1,872,000
250,000	25,000	\$2,340,000

Note: These projections exclude estimates of revenue from affiliate marketing, lead generation, transmission of profile information to allow targeting of ads on participating publisher Web sites, publisher share of sales revenue from icon-accessible apps placed on the Circulate Bar, direct merchandise sales or other future revenue-generating enhancements.