Poe in Cyberspace: The Browser Wars Redux

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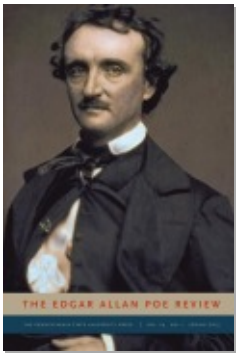

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FEATURES

Poe in Cyberspace: The Browser Wars Redux

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When Charles Babbage, inventor of the programmable computer, read the lines "Every moment dies a man, Every moment one is born," in Tennyson's "The Vision of Sin," he felt compelled to correct the poet's demographics. If true, Babbage noted, "the population of the world would be at a standstill. In truth, the rate of birth is slightly in excess of that of death," so he suggested a modification in the text, "Every moment dies a man, Every moment 1 1/16 is born." Aware of the liberties he had taken with both the meter and the statistics, Babbage quipped, "The figure 1 1/16 will be sufficiently accurate for poetry." For his part, Poe preferred to regard Babbage less pragmatically and more absolutely as his model for logic in machinery. After rejecting several unconvincing explanations that regarded Maezel's chess-playing machine as a true automaton, Poe held up his idea of Babbage's "pure machine" as an infallible standard: "There is then no analogy whatever between the operations of the Chess-Player, and those of the calculating machine of Mr. Babbage. . . . The Automaton does not invariably win the game. Were the machine a pure machine this would not be the case—it would always win."

In the 1990s we revived Poe's faith in "pure machines" when we expected algorithms to analyze and rank Internet pages just by examining the texts of their contents and descriptors. In that era of "browser wars," Netscape faced the superior marketing power of Microsoft's Internet Explorer. Afterward, when Web 2.0 elements appeared, interactive websites and social networks provided new contexts to consider in page rankings. Now, as the first hints of Web 3.0 start to arrive, browsers and search engines are making their way toward a future "semantic web" of computers that promise to be equally intelligible to people and machines. One unexpected consequence of the decline in desktop

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computing and the burgeoning popularity of smartphones, tablets, and other handheld devices is that new browser wars are flaring up between Apple, Google, Microsoft, and Mozilla.

These rapidly evolving visual and social forms of information about Poe on the Internet are affecting both students and scholars. Formerly, the various Internet components, such as operating systems, browsers, search engines, and information sites were distinct entities, but now they overlap and may even merge. For example, Chrome, originally a browser for the search engine Google, is now also the operating system for the ultra-lightweight "Chromebooks." Mozilla Firefox, once a browser competing with Microsoft's Internet Explorer in the tradition of Netscape, is now being supported by Microsoft as a browser of choice with Microsoft's Bing search engine as its home page. In addition, Microsoft Windows, formerly the global standard of operating systems for desktop and laptop computers, now is abandoning the traditional desktop of small icons in Windows 8, switching for its default visual interface to the tiles now standard in handheld devices. Thus it is becoming increasingly possible to connect to people, apps, folders, photos, or websites by touchscreen, without using a keyboard or mouse. Although much of the content of Internet research remains unchanged, the consequences of the new formatting patterns remain unclear at this time.

New software ventures are being inspired by the mobile or handheld computer, either ignoring the desktop computer or relegating it to afterthought status. Yahoo! Axis is a supplementary program that eliminated the list of hits produced by search engines, instead going directly to thumbnail previews seen on the bottom of the screen; in addition, it allows users who sign in to synchronize their work and thus keep their bookmarks as they go from one device to another. Netscape founder Marc Andreessen has joined Rockmelt, a new browser released initially for the iPad, accepting data from Facebook and Twitter accounts to customize a stream of publishers, feeds, and friends. These simplifications of software should prove useful in retrieving familiar information and in moving from one handheld device to another, but they do not seem to be primarily designed for heavy-duty research.

Recently, changes are becoming visible in the arrangement on the screen of favorite browsers and search engines. Users of three well-known browsers, Chrome, Firefox, and Internet Explorer—or three well-trafficked portals or search engines, Bing, Google, and Yahoo!—are finding significant changes that require some adjustments in what they habitually use, as well as an opportunity to explore fresh alternatives. In any of the three main search engines, typing just *edg* into the request box immediately produces the suggestion *edgar allan poe*. On the other hand, typing *poe* will reveal that search engines also know what they

do not know: the ambiguous word may mean Edgar Allan Poe, Anne Decatur Danielewski (who sings under the name Poe), Nathan Poe's law on creationist parodies, the abbreviation for the computer-programming Perl Object Environment, Congressman Ted Poe, or other possibilities. (However, standard search engines seem to miss the doomsday code POE for "purity of essence" in the 1964 film *Dr. Strangelove*.)

What are the differences among the standard search engines, and how should one choose among them? When the Firefox browser is used to summon a Google search for *edgar allan poe*, the result begins with the traditional ordered list of Web addresses, to which several new information clusters are added, including Poe images, a digest of the Wikipedia entry, Poe books and movies, related authors (Lovecraft, Arthur Conan Doyle, Hawthorne, Baudelaire, Jules Verne), and Poe museums and historical sites. Google also offers eight Poe-related subsearches: *biography, the raven, short stories, poems, facts, life, quotes,* and *annabel lee*. Google promises 19,400,000 results, produced in 0.48 seconds (how can we verify either claim?), patterns that probably reflect general Web traffic rather than scholarly activity. The Google top menu also includes seven generic choices: Web, Images, Maps, Shopping, Books, More, and Search Tools. (The More option leads to Videos, News, Places, Blogs, Discussions, and several other rubrics; the Search Tools option includes filters for time and place.) In addition, Google has several bottom menu choices: Advanced Search, Search Help, and Feedback. A suggestion: if you have not yet tried Advanced Search, which can filter data for date, website, relevance, and reading level, put it at the top of your "to do" list. When the Chrome browser launches Google, the results are similar to starting from Firefox, the claim being 16,300,000 results in 0.23 seconds (does this mean that Chrome produces 3.1 million fewer matches but in half the time of Firefox?). For its part in the new browser wars, Google is moving toward the integration of browsing, searching, data storage, and productivity software in the cloud, having developed Chrome and Android for software and now introducing Chromebooks for hardware.

A Bing search from Internet Explorer produces a Wikipedia digest, Poe works, people (Virginia Clemm, Hawthorne, John Cusack), images, the Wikipedia URL, videos, eight Poe-related suggestions (*biography, history, short story, quotes, raven, poem, death theories, collected works*), and the promise of 10,900,000 results. At the page top we find Bing's invitation to make Firefox one's default browser with Bing its home page. The major innovation for Bing is the column on the right third of the screen called Social Results, beginning with five potential Facebook connections, followed by a selection of some ten recent Poe postings from social networks, such as Twitter, Klout, Quora, *Huffington Post*, and *Baltimore Sun*. The Bing top menu includes Web, Images, Videos, Maps, News, and More—the

last with more than a dozen additional choices, including Entertainment, Social, Weather, Translation, Events, Math, Dictionary, Developer Tools, and Bing Apps for mobile devices and social networking. Microsoft's position in the new browser wars is to standardize one interface throughout its entire line, Windows 8 to operate desktop and laptop computers, Internet Explorer as browser, Bing as search engine, and its new ventures into hardware, the Windows Surface tablet and Windows smartphone using versions of Windows 8.

After the European Union took legal action against Microsoft for illegally bundling Internet Explorer with previous versions of Windows, the settlement required Microsoft to provide information about other browsers, which it does at the website BrowserChoice.eu. The first group there includes the five most used Windows web browsers (Internet Explorer, Mozilla Firefox, Google Chrome, Opera, and Maxthon), representing the four major rendering engines (Trident, Gecko, WebKit, and Presto). A second group contains seven less well-known browsers (Avant Browser, Comodo Dragon, K-Meleon, Lunascape, Rockmelt, SRWare Iron, and SlimBrowser).

For the technically minded: (1) Trident (also known as MSHTML) is the layout engine for the Microsoft Windows version of Internet Explorer, but some critics point out that half of the other suggested browsers on BrowserChoice.eu also use Trident in some other form; (2) Gecko is a free and open source layout engine developed by Mozilla that is used in the Firefox web browser and many other applications; (3) WebKit is a layout engine software that powers Apple Safari and Google Chrome, becoming the dominant layout engine due to the popularity of the iPhone and Google Android systems; and (4) Presto has been the layout engine for certain versions of the Opera web browser, which will introduce the WebKit engine in 2013. For further discussion, see http://en.wikipedia.org/wiki/Comparison_of_web_browsers.

Surveys on the relative popularity of Web browsers vary in results, depending on geographical coverage, the hardware considered, and particulars of the methodology employed. Among visitors to Wikimedia, Internet Explorer declined in share from 70 percent in 2009 to 35 percent in 2013, during which time Chrome increased from 0 percent to about 35 percent. Among all visitors, mobile and laptop browsers accounted for about 14 percent of the total, and the most popular were Android, Safari, and Opera. Yet NetMarketShare shows Internet Explorer leading the desktop at 55 percent, followed by Firefox at 20 percent and Chrome at 17 percent, while mobile/tablet shares, about one-eighth of the whole, were divided among Safari at 61 percent, Android at 21 percent, and Opera at 10 percent. According to StatCounter in October 2012, Internet Explorer is the most popular browser in the United States, Canada, Oceania, the Netherlands,

Taiwan, and the United Kingdom; Chrome is popular in Russia, Saudi Arabia, Mexico, France, Asia, Europe, South America, as well as Turkey, Morocco, Vietnam, Spain, Pakistan, Italy, India, and the Philippines. In addition, the Baidu browser is popular in China as is the Yandex browser in Russia.

What features should a Poe researcher look for in a browser? Experts point to speed, security, social network integration, mobile support, bookmarks, translation capability, convenience of photo/video uploads/downloads, support of multiple windows, efficient use of HTML5, user languages, password and form shortcuts, popup and ad blockers, mouse gestures, RSS feeds, Flash animation, memory efficiency, tabbed browsing, integrated search bar, and press and industry awards and recommendations. The technical-minded will also consider CSS2, XHTML, and support for the image formats JPEG, GIF, PNG, TIFF, and PDF.

In the browser wars, how do the most popular browsers compare for speed, convenience, flexibility, extensibility, and security when applied to Poe research? Although Google Chrome, Internet Explorer, and Mozilla Firefox all provide highly serviceable browsers, some general differences emerged in tests conducted by *PC World* (January 2013). In graphics-intensive tests using HTML5, Chrome was the leader for speed, followed by Internet Explorer, with Firefox far behind. In applications using JavaScript, Internet Explorer led the pack. For many the new interface of Internet Explorer was inconvenient, requiring some adjustment. For extensions, Chrome and Firefox had the most options. For security, Chrome was distinguished by its "sandbox" feature that isolated new downloads. Overall, Chrome was judged best by a slight margin, but all three browsers, being free of charge, were recommended as worth trying. My own comment: I find Chrome to be fast, but its controls are hidden until the uses of the Alt and F1 keys are discovered.

There are hundreds, perhaps thousands, of Poe-related presences on Facebook, including the Edgar Allan Poe House and Museum in Baltimore, the Edgar Allan Poe National Historic Site in Philadelphia, the Edgar Allan Poe Museum in Richmond, and PoeStories.com. In addition, the Edgar Allan Poe Foundation of Boston and the International Edgar Allan Poe Society have Facebook pages and websites. Search engines report millions of tweets on Edgar Allan Poe on Twitter. The Instagram photo-sharing site has more than 150 screenfuls of images tagged #edgarallanpoe, and uploads of Poe images to Pinterest, the "online pinboard," fill more than 60 screenfuls.

Google Zeitgeist reports that for the year 2012 a total of 1.2 trillion searches were made in 146 languages on Google, the most popular being for music stars, digital games, world events, computer hardware, and public personalities.

Google Trends discloses that each year Poe requests peak in October, presumably reflecting student assignments or simply Halloween. The relative scores of the most popular requests for Poe on Google were *raven*, 100; *the raven*, 90; *edgar allen* [sic] *poe*, 50; *poe biography*, 40; *black cat*, 30; *el cuervo*, 25; *tell tale heart*, 25; *the black cat*, 20; and *annabel lee*, 20. We should not be surprised that *el cuervo* made the list: the relative scores for most requests by country of origin were highest from El Salvador, 100; followed by Mexico, 63; Philippines, 60; Colombia, 57; Puerto Rico, 55; Ecuador, 45; Honduras, 44; Chile, 39; Costa Rica, 39; and the United States, 37.

In conclusion, two important causes of the renewed browser wars are the uncertainties produced by (1) the shift of hardware usage from the fixed desktop computer to mobile handheld devices, and (2) the migration of data storage from local hard disks to the Internet cloud. Although the habits of causal users will not necessarily affect the activity of professional users, we seem to be entering a period of mixed use of old and new methods and devices. It is interesting to see such a pattern in the devices that President Barack Obama employs to keep himself informed, as ZDNet.com reported recently: "Obama has been known to dabble across various platforms. He uses Macs and PCs, BlackBerrys and iPads. He appears to be a platform 'agnostic,' like many by not endorsing or using a single platform. Instead, he uses what works best for the occasion." We are also told that President Obama relies on a wide variety of equipment, including an Apple iPad, a Dell Latitude notebook, an Apple MacBook Pro, a BlackBerry Curve, an HP Elitebook notebook, and several security phones and special video panel displays. For Poe researchers, the traditional desktop computer will not vanish soon, but the rise in sales of handheld devices may present a challenge to established work habits in the future. As computer research becomes increasingly ubiquitous, Poe scholars who use a variety of new hardware devices in the course of a normal workday may also need to consider choices of new browsers as well as search engines.

"Poe in Cyberspace" columns are archived online at eapoe.info.