

# The Online Experience and Sales – Connecting the Dots

The Top 500 leaders and laggards in web performance

By David Flinn

While some of the best-known companies in the world have mastered and maximized, measured, and manipulated their offline environments on a quest for maximum results, they have missed the point with their online channels.

Whether a customer is shopping for a sweater at a major department store, making a catalog order

through a call center or checking a return status with a store representative, the customer experience is very important and can make the difference for the lifetime of the customer relationship. So, is this any different for online customers? Hardly. As different as the online world may seem by comparison, a fundamental truth remains exactly the same: if

you make products and services hard to find, hard to buy or create a poor shopping environment, customers won't buy. The reality for many companies today is that the fastest growing channel and the best way to improve margins is the Internet.

Today's online shoppers have higher expectations than ever before and limitless options as to where they

## Internet Retailer Top 50 Web Site Performance Metrics

2008 Rank	Company name	Consistency rating	Response time (seconds)	Availability	2008 Rank	Company name	Consistency rating	Response time (seconds)	Availability
1	Amazon.com Inc.	Good	1.810	99.97%	26	Quixtar Inc.	Excellent	2.493	100%
2	Staples Inc.	Good	1.967	99.94%	27	Zappos.com Inc.	Excellent	0.880	100%
3	Office Depot Inc.	Good	1.708	99.38%	28	Macy's Inc.	Good	1.213	100%
4	HP Home & Home Office Store	Fair	2.330	99.85%	29	Redcats USA	Good	1.298	100%
5	Dell Inc.	Good	0.768	99.94%	30	Overstock.com Inc.	Good	1.166	99.97%
6	OfficeMax Inc.	Good	3.061	98.46%	31	Avon Products Inc.	Excellent	1.313	99.78%
7	Apple Inc.	Fair	3.053	99.85%	32	Nordstrom Inc.	Good	1.516	99.48%
8	Sears Holdings Corp.	Excellent	2.182	99.91%	33	Buy.com Inc.	Fair	2.164	99.85%
9	CDW Corp.	Good	4.598	99.91%	34	PC Connection Inc.	Good	2.888	79.60%
10	Newegg.com	Excellent	1.107	99.88%	35	Blockbuster Inc.	Excellent	1.113	100%
11	SonyStyle.com	Excellent	1.132	99.35%	36	1-800-Flowers.com Inc.	Good	2.808	100%
12	Best Buy Co.	Good	1.725	99.91%	37	Musician's Friend Inc.	Excellent	0.863	100%
13	Walmart.com	Excellent	1.701	99.94%	38	The Neiman Marcus Group Inc.	Good	5.836	99.85%
14	J.C. Penney Co. Inc.	Good	1.988	100%	39	Cabela's Inc.	Excellent	1.130	100%
15	QVC Inc.	Good	1.769	99.85%	40	Drugstore.com Inc.	Excellent	2.357	99.91%
16	Circuit City Stores Inc.	Good	1.301	100%	41	The Home Depot Inc.	Excellent	1.171	100%
17	Netflix Inc.	Good	2.050	99.97%	42	BarnesandNoble.com Inc.	Good	1.843	100%
18	Costco Wholesale Corp.	Good	2.513	99.85%	43	Toys "R" Us Inc.	Good	2.866	100%
19	Target Corp.	Good	2.912	99.85%	44	Scholastic Inc.	Good	0.693	97.99%
20	Victoria's Secret Direct	Good	0.991	100%	45	Peapod LLC	Good	4.640	99.97%
21	Williams-Sonoma Inc.	Good	1.659	99.94%	46	Saks Direct (Saks Fifth Avenue )	Fair	2.410	99.91%
22	Systemax Inc.	Good	1.705	99.01%	47	Nike Inc.	Good	0.810	100%
23	L.L. Bean Inc.	Excellent	1.241	100%	48	Blue Nile Inc.	Excellent	2.262	99.97%
24	Gap Inc. Direct	Good	2.315	99.81%	49	Foot Locker Inc.	Good	1.577	99.85%
25	HSN	Excellent	1.715	99.91%	50	Oriental Trading Co. Inc.	Fair	2.729	100%

choose to spend their money. They have had enough online experiences to form discriminating value judgments about your brand and quality, often based on their experience on your web site, and usually in a matter of a few seconds.

That said, all too frequently companies acquiesce to subjective self-assessments or anecdotal evidence that their web site is better or worse than another. So what sets Internet performance leaders apart from the crowd? The web performance leaders in the Top 500 are those that demand more. To them, the online channel must deliver a level of performance that equals or betters that of their call center or bricks-and-mortar outlets.

### Why performance metrics?

Just like other critical metrics, such as conversion rates, total online sales revenue and unique monthly visitors, performance metrics provide

powerful insights that can drive critical business decisions and, ultimately, greater profit from the web channel.

Only by leveraging performance metrics extracted as close as possible to the actual customer—rather than from an anonymous data center packed with servers and high bandwidth—can analysts understand how all their hard work is affecting the customer experience.

In this Internet Retailer Top 500 Guide, every retailer has been measured for three performance metrics that directly impact the online experience and, consequently, sales:

- ▶ **Availability.** Is the store open for business when it says it is?
- ▶ **Response Time.** Customers don't like to wait in line at the store or on the web.
- ▶ **Consistency.** How does the site perform across networks and geography?

### Availability: Let the customer in the door

The door must be open in order to let customers in to shop. So the key question is: can my customers access my home page or search landing pages?

Among the Internet Retailer Top 500, a number of retailers barely kept the lights on: 63 of the 500 had availability of less than 99.5%. That may sound like a high standard, but the average availability was 99.71% and 102 retailers had perfect scores of 100%. 99.5% availability means that out of 3,360 tests (14 days, 10 tests, 24 hours a day), 17 did not return a page. The lowest were PC Connection (79.60%), Batteries.com (96.70%) and Miles Kimball (96.70%).

### Response Time: Speed makes customers happy

Everyone is busy and no one likes to wait. The Gomez response time metric (how long the home page takes to load in a web browser) is the most intuitive to understand since waiting for slow web sites is no fun at all. A number of sites were very slow compared to their peers. Paper.com was the slowest (18.434 seconds), followed by Parts Express (14.356 seconds), and Fins, Furs, and Feathers (12.671). The average was 3.564 seconds, and 207 of the Top 500 retailers were faster than the average.

The leaders with under 1 second response were Ross-Simons (0.678), Scholastic (0.693), Bose (0.752), Dell (0.768), emusic.com (0.805), Nike (0.810), Patagonia (0.819), REI (0.834), Musician's Friend (0.863), Zappos (0.880), Replacements (0.921), B&H Photo (0.982), Dillard's (0.983), and Victoria's Secret (0.991).

### Consistency: Making the brand dependable

After all the work in building a web site and bringing the customer to the front door, the final performance metric assures uniformity

## Gomez performance testing methodology

In January 2008, Gomez Inc. measured the home page performance of the Internet Retailer Top 500 retail web sites. Measurements were taken once per hour from 10 data center locations across the United States with standard 10 Mbps connections to the Internet. Measurements were calculated 24 hours a day from Jan. 9 to Jan. 23.

### Response time

Measured in seconds, the response time is the total end-to-end time required to fully download a home page and its entire image, flash, style sheets, JavaScript and other HTML components. All successful measurements are then averaged to generate the final result.

### Availability

Availability is the percentage of times a home page is successfully downloaded. Network related errors, DNS issues, or web server errors (404, 500, etc.) are causes for pages failing to load. All successful measurements are divided into the total measurements (approximately 24 hours per day, 14 days, 10 nodes in the sample = 3,360) to calculate availability.

### Consistency rating

Based on standard deviation of the test response time and the test availability, the consistency rating is a quality ranking of Excellent, Good, Fair, or Poor. An initial consistency score is generated as the product of the response time standard deviation and the availability. Then each score is scaled to a number between 1 and 100. A retailer whose scaled score was above 98 was rated Excellent; above 95, Good; above 85, Fair; below 85, Poor.

For more information on the Gomez web performance measurement methodology or report performance results, contact Gomez directly at (877) 372-6732 or visit [www.gomez.com](http://www.gomez.com).

# Top performers in consistency

This year, we graded the Internet Retailer Top 500 according to the volume of traffic they receive. There's evidently a correlation between traffic and performance, so we decided to look closer.

## Top performers with over 2 million monthly unique visitors

(Ranked by response time)

The largest retailers usually get all the attention since they drive a lot of traffic. In this section we have ranked each retailer by category with their competitors, as long as their monthly unique visitor ranking is greater than 2 million. The leaders are those you would expect, but there also are several surprises. Offenders returning a "Poor" metric for consistency included Gateway and Napster, large brands we'd presume would actually perform more consistently than they do. In the Apparel category, L.L. Bean was very close to Zappos, with only a 1.241 re-sponse time versus Zappos' 0.880.

Category	Top Performers					Lowest Performers				
	Retailer	Rank	Consistency	Response Time (sec.)	Availability	Retailer	Rank	Consistency	Response Time (sec.)	Availability
Apparel/Accessories	Zappos		Excellent	0.880	100%	Charming Shoppes		Fair	3.274	100%
Books/Film/Video	Blockbuster		Excellent	1.113	100%	Napster		Fair	3.576	100%
Computers/Electronics	Newegg		Excellent	1.107	99.88%	Gateway		Fair	4.207	99.85%
Flowers/Gifts	Hallmark		Excellent	1.186	100%	Vermont Teddy Bear		Fair	4.073	99.97%
Food/Drug	CVS		Excellent	1.974	99.97%	Green Mountain		Poor	8.518	99.88%
Hardware/Home Improvement	Home Depot		Excellent	1.171	100%	-				
Health/Beauty	Avon		Excellent	1.313	99.78%	-				
Housewares/Home Furnishings	Linens 'n Things		Good	1.976	100%	Art.com		Fair	2.327	99.97%
Jewelry	-					Bidz		Fair	6.788	99.91%
Mass Merchant/ Department Store	CaféPress		Excellent	1.595	100%	Buy.com		Fair	2.164	99.85%
Office Supplies	Office Depot		Good	1.708	99.38%	-				
Specialty/Non-Apparel	Musician's Friend		Excellent	0.863	100%	J.C. Whitney		Poor	5.789	99.94%
Sporting Goods	Cabela's		Excellent	1.130	100%	-				
Toys/Hobbies	Toys "R" Us		Good	2.866	100%	-				

Note: Blank cells indicate no appropriate retailer ranking is available

## Top Performers with 1 to 2 million unique visitors

(Ranked by response time)

This middle tier of retailers shows plenty of strong brand performance but also a few surprises delivering poor consistency, such as Lillian Vernon and Computer Geeks. In the Health category, Avon was just edged out by Sephora, with a faster response time but just a slightly lower availability (99.78%).

Category	Top Performers					Lowest Performers				
	Retailer	Rank	Consistency	Response Time (sec.)	Availability	Retailer	Rank	Consistency	Response Time (sec.)	Availability
Apparel/Accessories	Aeropostale		Good	2.303	100%	Hot Topic		Fair	5.228	99.81%
Books/Film/Video	Emusic.com		Excellent	0.805	100%	YesAsia		Fair	7.773	98.79%
Computers/Electronics	B&H Photo		Excellent	0.982	99.91%	Computer Geeks		Fair	5.186	99.97%
Flowers/Gifts	1-800-Flowers		Good	2.808	100%	-				
Food/Drug	-					-				
Hardware/Home Improvement	Northern Tool		Excellent	1.019	99.97%	-				
Health/Beauty	Sephora		Excellent	1.837	99.97%	Lancome USA		Poor	9.387	99.07%
Housewares/Home Furnishings	Collections		Good	1.674	99.78%	Lillian Vernon		Fair	3.487	99.60%
Jewelry	-					-				
Mass Merchant/ Department Store	-					Smart Bargains		Fair	3.723	99.60%
Specialty/Non-Apparel	AutoZone		Excellent	2.468	99.91%	AutoAnything		Fair	4.494	99.29%
Sporting Goods	REI		Excellent	0.834	99.97%	-				
Toys/Hobbies	American Girl		Excellent	1.372	100%	JoAnn.com		Fair	4.979	99.91%

Note: Blank cells indicate no appropriate retailer ranking is available

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in customers' experiences whether they're across the street or across the globe. Everyone knows that a consistent level of service and performance builds strong brand loyalty. Thus a good consistency score generally translates into shoppers staying longer or buying more. An inconsistent web site only leads to consumer frustration and abandonment. A bad score typically reflects that shoppers may never arrive on the site, or they may come and go in a hurry.

Additionally, studying aggregated consistency metrics gives retailers a way to determine the degree to which the delivery of their services is consistent across time and traffic peaks. Examining web application consistency details can help retailers to aggregate individual performance metrics for easier comparisons with peers.

75 of the Top 500 scored Excellent, 220 Good, 186 Fair, and 19

Poor. This means almost 40% of the retailers had mediocre consistency. One reasonably sized retailer (over \$100 million in web revenue), J.C. Whitney, does a lot of business online but scored poorly in its consistency. Perhaps by optimizing this metric, they could increase conversions and drive more revenue.

### Retailers know performance matters

Retail leaders go well beyond assessing the "usual" performance criteria—availability and response time. They realize that consistency matters. It means delivering an excellent online experience to all customers, no matter their location, connection type or the time of day they shop. Leaders examine every facet of every customer-facing process that can impact the online customer experience. These leaders



David Flinn is director of professional services at Gomez Inc., where he manages benchmarking and professional services for customers. Flinn has 18 years experience as a systems architect, working on diverse technology in data warehousing, Internet commerce, intranets, relational databases and data security.

want to ensure that their products can be found, seen, reserved, carted, and purchased quickly and enjoyably—every time. ●

## Top Performers with under 1 million unique visitors

(Ranked by response time)

Probably the most interesting category is retailers with fewer than 1 million unique visitors. There are some strong performance leaders here, such as Patagonia, Tiffany and Quixtar, and some surprising laggards, especially BJ's and Rock Bottom Golf who, literally, did hit rock bottom. In Flowers and Gifts, Potpourri was very close to the Top Performer Uncommon Goods with a response time just a bit slower at 4.507 seconds. In Jewelry, Tiffany was edged out by Ross-Simon due to a slightly slower response time of 1.336. In the Specialty category, PartsAmerica was just 0.4 seconds slower than Discovery.

Category	Top Performers				Lowest Performers					
	Retailer	Rank	Consistency	Response Time (sec.)	Availability	Retailer	Rank	Consistency	Response Time (sec.)	Availability
Apparel/Accessories	Patagonia		Excellent	0.819	99.97%	Dooney & Bourke		Poor	5.403	99.44%
Books/Film/Video	Follett		Excellent	2.151	99.44%	Infinity Resources		Fair	3.762	99.54%
Computers/Electronics	Bose		Excellent	0.752	99.97%	Parts Express		Fair	14.356	99.81%
Flowers/Gifts	Uncommon Goods		Good	3.736	100%	GiftCollector		Fair	5.227	99.66%
Food/Drug	Allen Brothers		Excellent	1.606	99.97%	K&L Wines		Fair	8.937	99.94%
Hardware/Home Improvement	PowerComplete		Excellent	1.678	100%	iKitchen		Fair	5.002	98.58%
Health/Beauty	Quixtar		Excellent	2.493	100%	Gaiam		Fair	6.829	98.55%
Housewares/Home Furnishings	Replacements		Excellent	0.921	100%	Bellacor		Poor	4.578	98.30%
Jewelry	Ross-Simon		Excellent	0.678	100%	Jomashop		Poor	9.695	99.91%
Mass Merchant/Department Store	Personalization-Mall		Excellent	1.717	99.91%	BJ's Wholesale		Fair	8.091	99.91%
Office Supplies	InkSell		Good	2.811	99.94%	4inkjets		Fair	5.922	98.98%
Specialty/Non-Apparel	Discovery		Excellent	1.482	99.91%	Paper.com		Poor	18.434	99.53%
Sporting Goods	MC Sports		Excellent	1.758	99.97%	Rock Bottom Golf		Poor	6.983	99.78%
Toys/Hobbies	Herrschners		Excellent	1.608	99.75%	Beckett Media		Poor	11.380	96.78%

Note: Blank cells indicate no appropriate retailer ranking is available