

BEYOND SHOES: FINDING THE PERFECT SIZE, FIT, AND EXPERIENCE FOR ONLINE SHOPPING

A conversation with the Senior Director of Engineering Zappos.com's Brent Cromley

Intro: Zappos.com is synonymous with online shoe shopping, and has built its reputation and a loyal fan base on outstanding customer service, including free shipping both ways. But the quintessential shoe site has moved far beyond footwear into clothing, housewares, electronics and more. And it has ported its successful Web site and fulfillment capabilities to other brands through its "Powered by Zappos" service. Now, it's trying to ensure its growth in apparel and other product lines through an ambitious Web site rebuild centered around a powerful new search function and other enhancements. Benchmark recently caught up with Senior Director of Engineering Brent Cromley to find out how Zappos is stepping out to go after bigger online retail success.

Benchmark: You've recently redone the Zappos Web site, and we're anxious to learn all about it. When did the new version go live?

Brent Cromley: We soft-launched it in September of last year. We've been running a hybrid site, where we've slowly been sending more and more traffic to the new site. We have been very careful about the switch-over for two reasons. One, we're radically altering the user experience and we want to make the transition as gentle as possible. And two, we're very closely monitoring our SEO rankings. A complete switchover all at once would drop all the organic search rankings we've built up. So by slowing phasing it in and letting the new site build up some of its page ranks, we can slowly transition that over and not have a month or two hiccup where all of a sudden we're not showing up high in the organic search results.

Benchmark: So how are you dividing the traffic up? How are you determining who is going to see the new site, and who is going to see the old site?

Brent Cromley: Right now if you search on the old site, 100 percent of those searches are redirected over to the new site. That was one of the first things we did, because search performs much better on the new site. Also, if you go to a brand page or product, these will also be powered by the new site. So what we haven't switched over yet are some of the static pages and some of the intermediate landing pages. That represents roughly around 20 percent of the site traffic waiting to be switched over. And those

are the ones we're still building up the search rankings for.

Benchmark: So when I type in Zappos.com in my browser, am I getting the new site or the old site?

Brent Cromley: That is the old site. But if you were to search — for Ugg or something like that — you would immediately be directed over to the new site. You'll be able to tell because you will notice the look and feel changes as you arrive on the new site. It has a small "Zeta" logo underneath Zappos in the upper left-hand corner.

Benchmark: OK, we're looking at the new site now, and there are product photos arrayed across the top in a number of categories. Tell us a little about what's behind the redesign. What is Zappos trying to accomplish with the new site?

Brent Cromley: We had four primary objectives. We knew we wanted to come up with a new look and feel, at a minimum, for the new site. But also, it had been a long time since we had dug deep down into the underlying architecture and technology behind it. So we came up with four main objectives. One was basically to improve the search, to make it easier for people to find the products they want. We were starting to branch out into a number of new product categories, and what we had built for shoes really wasn't going to continue to scale to make it easy to find DVD's, or kitchen products, or any of the other product categories that we were branching into. So we wanted to give the search an overhaul to handle these new categories. And we wanted to make our new e-commerce platform scalable to easily build more sites.

Benchmark: What other sites would you be building?

Brent Cromley: We have a "Powered by Zappos initiative," which is where we build and host Web sites for some of the brands that we sell. We provide the e-commerce experience, as well as the fulfillment and the customer support. It's basically a one-stop place to go to get a complete Web site, fulfillment and customer support.

Benchmark: So for example, for what brands would you be building sites and providing operations support?

Brent Cromley: Some of the brands we're doing it for now are Clarks, which includes their Bostonian, Privo and Unstructured lines. We're doing it for Stewart Weitzman, Taryn Rose, and we're doing it for Report Shoes and for Charles David. These are Web sites that are live now. We've got a number of other ones launching later this year.

Benchmark: So you're actually building the Web sites for these brands? Or some portion of their Web site?

Brent Cromley: We have a couple different tiers. A tier one would be, we build out all of it and host it. So in the case of Clarks, we build and host — all the content that's on the site for the Clarks USA is built and maintained by us. And then we provide the e-commerce shopping experience. Now there are other sites where they have all the static content and they want to manage and market that. But then once you click on "Shop" or "Search," it takes you over to our e-commerce technology.

It just really depends on what the company is looking for, and what they already have, that determines how we fit in. But, basically, for everyone, we do all the e-commerce, fulfillment, and customer support.

Benchmark: And you mean literally fulfillment, mailing out the products for them.

Brent Cromley: Yes, exactly.

Benchmark: OK, so that was three objectives so far — new look and feel, improved search, and scalability so you can build sites quickly. And the fourth objective?

Brent Cromley: The fourth one was basically to make it easier to do changes quickly. We really had kind of built ourselves into a little bit of a corner, where we couldn't make those changes as quickly as possible because the system was getting a little bit too complex. So we wanted to break it out into smaller pieces that could be managed and updated in a quicker fashion. So those are the four goals we set for rebuilding. And then we decided through the investigation that it made sense to start over with a new technology, and a new code base for this.

Benchmark: So what's some of the new technology that's powering the site?

Brent Cromley: Building the new site was really the genesis of what we called "Zeta," which is Zappos Beta. And that's powering the new site that you see right now.

Benchmark: And new search technology is a key component?

Brent Cromley: Yes. We looked at it around a number of different search technologies. We had initially built our own internally but we realized it probably wasn't something we wanted to maintain long-term. So we looked at a couple of the major vendors, and then we looked at SOLR which is an open source search technology. And we ended going with SOLR.



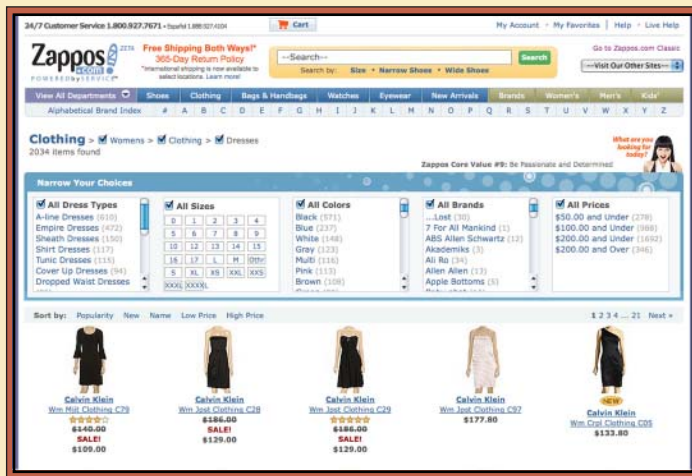
The old Zappos.com offered a limited number of search criteria; an every-growing number of SKUs were stretching the functionality and usability of Zappos' homegrown search engine.

So we're using SOLR for search. Also, we had previously done our own templating language and templating technology. We went with an open source templating technology as well. So basically, we went through a bunch of the different components and decided what made sense to slot in for our new site.

Benchmark: So how is the performance of the new search compared to the old? How are you measuring it?

Brent Cromley: What we did in the early phases is look at searches performed on "classic" Zappos, as we call it, and searches on the new site. And we looked at the percentage of those searches that would actually convert to orders, and then at the actual order size. We found that searches on the new site would do five to ten percent better in terms of people actually finding and adding what they wanted to their cart. And we found that the order size was on average between \$5 and \$10 more on the new site using the new search. We basically attributed that to them being able to see more products easily as well as finding them more quickly — and finding products that they weren't able to find on the classic site. That's varied over time, but it was always

right in that sweet spot of improvement. So that really drove our decision to send more of the search traffic more quickly over to the new site.



The new Zappos search function offers more search criteria, and greater opportunity to refine results for a more intuitive and satisfying customer experience.

Benchmark: Obviously search is really, really central and key to the Zappos user experience. But what other things have you done in the rebuild beyond search?

Brent Cromley: Well, I've mentioned the platform which allows us to build the other sites. And we've done a new categorizations scheme. We've cleaned up our old categories and made it much more practical for all these different product categories, as opposed to just shoes and clothes. So that was a pretty big overhaul. We've also done a lot of work as far as being able to handle other product attributes that are not size and width. Because when you're just dealing with shoes, you're going to assume everything has a size and a width. Now as we get into suits, for example, you have more attributes. So a lot of work there basically to support these other product attributes — which is probably not as noticeable visually, but when a user gets in and starts navigating the site it makes a difference. Other things we've done — because we have the new technology — we're about to launch high resolution images. These are features that the new e-commerce platform makes much easier for us to launch in a quicker fashion.

Benchmark: This is all very exciting stuff. But you're launching at a time that's exciting in maybe not such a good way. What kind of impact has the current economic turmoil had on Zappos?

Brent Cromley: We fortunately are in a space that's still growing. E-commerce as a whole is still growing and we are optimistic that even with the current economic conditions, a lot of people are still going to continue to buy shoes. We were conservative with our growth plans for this year; but it was a great Q1 for us. And we're still very excited about the rest of 2009. The year-over-year

numbers are still trending positively. But we definitely have to be cautious in this economy.

Benchmark: What about your mobile strategy, are you planning to have a mobile version of the site?

Brent Cromley: We have an iPhone version of the site, iPhone. Zappos.com. That's not linked anywhere. We launched that at the end of last year. It's very customized for the iPhone. And it has a lot of the same navigation features that you would expect to see. But we're still very much gathering feedback — we haven't started sending people directly to it if they come to our Website with an iPhone. You do want to be careful to make sure that the shopping experience is not frustrating.

Benchmark: Are you planning a broader mobile strategy beyond the iPhone?

Brent Cromley: We definitely are; we're looking at other mobile applications as well, although I don't have any specifics I can share with you right now. But it's definitely pretty high on our radar.

Benchmark: OK. The other big piece of the puzzle is social media. What's your strategy? You have a Facebook page, we noticed.

Brent Cromley: We definitely have a Facebook presence and a Facebook application that allows you to show your favorites and show what your favorite brands are on your Facebook page, if you so desire. But I'd say the big area that we are focused on as far as social media goes is Twitter. Tony (Tony Hsieh, CEO), is one of the larger Twitter users and has more than 350,000 followers on Twitter right now. [Ed. note: as of last count on 4/20/09, Zappos/ Tony Hsieh had 459,625 followers.]

Benchmark: Yes, we've noticed that Zappos is very big on Twitter.

Interesting NY Times article on relationship between happiness & nature - <http://bit.ly/zhappynature> (via @gretchenrubin)

2:59 PM Apr 19th from web

Headed to a meeting to discuss the future of fun experimental web site <http://explore.zappos.com>

8:53 PM Apr 18th from txt

Headed to SF, tweetup at 8 PM tonight! 244 Jackson St. FREE Haamonii sochu drinks 8-9:30 PM. If you're in SF stop by & say hi!

2:40 PM Apr 18th from txt

Great video about the speed of technology and innovation, really puts things in perspective - <http://bit.ly/zthefuture>

12:19 PM Apr 18th from web

A sampling of Tony Hsieh's tweets. Shame we missed the free Haamonii sochu drinks. No doubt with this invitation, Hsieh added to his cadre of more than 459,000 followers.

Brent Cromley: Yes. We use Twitter to give our customers visibility into Zappos, as well as give them special deals and sneak peeks into some of the new functionality we are working on. For instance, Tony tweeted out a special VIP subscription code. This essentially allowed folks to become VIP members and have access to our exclusive site. So we're really using Twitter to help drive some membership and buzz around some of these new sites and technologies.

Benchmark: What kind of response do you get when Tony puts out a tweet?

Brent Cromley: It's pretty amazing. He'll Twitter out about a different blog post, and our blogs will just get an amazing amount of traffic very quickly. We'll have tens of thousands of users come within a period of just a few minutes to view that site.

Benchmark: Wow!

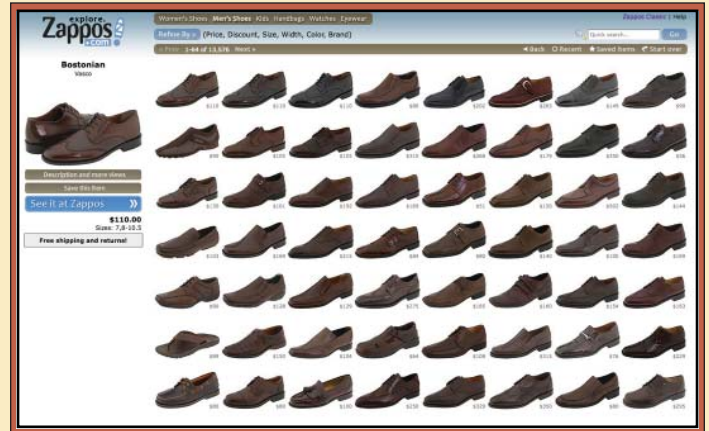
Brent Cromley: He's reaching out to 350,000 people almost instantaneously. So, it is a very powerful social medium. We definitely have embraced it pretty heavily — the entire company. Almost 75 percent of all employees at our Las Vegas headquarters are on Twitter.

Benchmark: How did he manage to get 350,000 followers?

Brent Cromley: He's an avid speaker, and he gives a lot of presentations. And at the end of all of these presentations he will put up his Twitter account. After every event that he participates in, he will get another 1,000 followers or so. And then with these VIP invite codes, people will follow him so that they can get invite codes. He's even given away free shoes over Twitter. So people will follow him just to find out what's going on at Zappos and potentially get the inside scoop.

Benchmark: So what other new things are we going to be seeing in the coming year and beyond for Zappos?

Brent Cromley: We are going to be doing a lot more with searches. I'll direct you to another site that we've been working on, called Explore.Zappos.com. This is just another way of shopping. This uses like-product association. You choose a product that you're interested in, and it will show you a lot of variations like that particular one. If you go into men's, and you click on a black loafer, it will show you a large array of black loafers. Maybe it'll show you a couple of varied colors too. Some may have laces, some may have buckles. And you click on one of the buckles and it will show a lot more with buckles that are like that. The idea is that, a lot of times you'll go into the site, and you may know "kind of" what you want, but you're not exactly sure. So, if you can find something like



The beta site, Explore.Zappos.com, presents an array of increasingly refined options that are similar or related to a particular item the user has selected.

it, then you'll see all these different options — it's kind of like being in a store, right? When you're shopping you see all these lined up. And you're like, I like that loafer, that loafer, and that loafer. This presents all those possibilities to you very quickly.

Benchmark: So is this in beta now? Are you planning to incorporate this as a search option? What's the strategy?

Brent Cromley: It's in beta now. We're definitely sending some amount of traffic to it through some mailers. I think we feel there are going to be a lot of different ways for people to search and find the things that they want. And this will be one of those. You can see how this way of searching would be good for shoes, but it is not going to work as well with DVD's, or with electronics. But for the right categories, it's pretty cool.

So that's one of our big, big focuses for this year, just really refining and improving our search, because as we're expanding into so many more product categories, it could get harder and harder to find the particular items you might want.

Benchmark: What do you see when you look into your crystal ball? What are the big things that are going to change the way you do business in the future?

Brent Cromley: We discussed social media — this is one area we are going to be really pushing forward in the next couple of years and is a guiding principal for many of our strategic directions. There can be a little bit of an isolating factor when you shop online. You're on a Web site and you are shopping alone. It shows up on your doorstep the next day, but that experience is very different from shopping in a mall, where you may be interacting with friends. Or, you may be interacting with the store sales person. These social aspects of shopping in a traditional retail establishment have not been replicated online yet. That's really

our big focus, over the next couple of years, we're really going to be focusing on how we can make that interactive experience that much more present in online shopping.

Benchmark: How do you think that's going to take shape?

Brent Cromley: There are a couple of things. We see the personal shopper functionality that we have on VIP Zappos as just the very beginning of something like that. That's the equivalent of talking with a sales person about the merchandise you may see in the store. You could imagine someone online being able to show you real-time, as you're shopping, particular outfits, and talking about them. You know, the area where you're shopping with friends, that's taking the aspect of being able to share. Right now, the

way that you share things is maybe you put them in a favorite or wish list and then you email that out to somebody. But there is no immediate feedback. You have to wait until they get the email and respond to find out their thoughts. Imagine if you could go shopping online with friends together. So that is where we really think that e-commerce is going and where we are going to be focusing — that kind of real-time shopping experience, where you're sharing experiences, sharing thoughts and ideas online.

Benchmark: These are all very exciting things to look at and to watch for. We'll be keeping an eye on Zappos.com, and hope to talk to you next year to see where you're going. Meantime, we're going to start following Tony Hsieh on Twitter, and see if we can get some free shoes.



Brent Cromley

Senior Director of Engineering
Zappos.com

Brent Cromley is senior director of engineering at Zappos.com, responsible for company-wide technology development including the Zappos.com websites, back office systems, fulfillment center software and enterprise software integration. He is focused on establishing a common architecture and building blocks to drive development aligned with corporate strategy and on improving the overall effectiveness of Zappos.com's engineering efforts. Brent has been with Zappos since January of 2007 and can eat 18 Krispy Kreme donuts in 15 minutes.

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