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INTERVIEW

Harper Reed

The brain behind some of the best CTA bus tracking apps on how technology can raise the quality of living in Chicago

Harper Reed and some old dude

By Michael Juliano February 21, 2011

The next time a commuter looks up how long until the next #56 bus comes on an iPhone, they should thank Harper Reed. That goes for transit alerts via Twitter from **CTA Alerts**, too. Buying a T-shirt from **Threadless**? Reed was a key part of the company's online growth when he came on as the CTO in 2005. After leaving Threadless, Reed focused on his own startup work and hacks, including an unofficial API for the CTA's bus tracker program that provided web developers with the tools to include bus arrival times into their own applications. He and **Everyblock** co-founder Dan O'Neil shared their work with the CTA and saw their ideas grow into an official transit API and developer center. To top it off, Reed found himself the recipient of last year's Data Innovation Award from the Metro Chicago Information Center.

The A.V. Club had the chance to talk to the Wicker Park resident and former professional yo-yoer about his bus-tracker work, along with what he thinks of the CTA's new Train Tracker, Groupon, working out for nerds, and how technology can help Chicago's pothole problems.

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The A.V. Club: Your name seems to pop up with a handful of labels: engineer, hacker, nerd, awesome, data innovator, and nephologist. Where would you place yourself?

Harper Reed: I think that one of the things I am really keen to do is liberating data that is or should be liberated, or is on its way to being liberated, but just kind of speeding that up. That really embodies what went down with the bus stuff, and also kind of what I'm really interested in personally.

AVC: There's a quote of yours about bus tracker that's been reposted on several sites: "The power is not the mashup. It's the data. The data is the answer." Is that a central idea in most of your work?

HR: Data gives a lot of people power in a lot of different ways. If you look at just politics, data pushes and sways votes. You can take data and make it say anything, but what I think is really interesting is the more accessible that data becomes, the easier it is to find a common truth from that. The power is in making that accessible.

AVC: What started your work on the bus tracker API?

HR: The big thing was that my wife used [CTA] Bus Tracker, and it was kind of a pain in the butt. She

had an iPhone, and the interface to it just wasn't necessarily friendly to the iPhone. It wasn't terrible, but it was enough where maybe she said one day, "This website blows."

I just looked at it and was like, "How can this be better? There has to be a way to make this better." I spend a lot of time just scraping websites and doing all sorts of bullshit like that. When I first moved to Chicago, I made this site that scraped the *Chicago Reader*'s Early Warnings concert listings and organized it by data and alphabetically, so I could figure out what show was coming up.

I spent a lot of time reverse engineering the Google Maps mashup the CTA had, and I spent a lot of time trying to document what they actually did. And since the CTA, in fact, are not idiots—they're very, very smart, and they really thought about this—they had a good application to reverse engineer, and a lot of times that's not the case. So I showed it to some friends, and they were like, "Wow, that's pretty awesome," and we brainstormed what apps we could make. And then I was like, "You know, I don't want to make any apps. I just want to make it so it's easier for my wife to catch the bus." I put up a Wiki page that was just like, "Here's how you can do it yourself, and here's the API to get the bus tracker," and then a bunch of friends released apps.

My favorite one right now is called **A Close Bus**. The thing about it is it just uses navigation on the phone, so you're walking, you pull out your phone, and it tells you what time the nearest bus will arrive. So that's awesome, right—that was the dream when I went through and hacked this API editor. I want my wife to go outside, lift up the phone, look at it, and be able to find when the bus is coming. But since I'm a lazy bastard, I don't want to actually do any of that work. So instead I just documented it so other people could do that work.

AVC: It sounds like you're pretty satisfied with how people have implemented the API.

HR: I'm very, very satisfied. We went and talked to the CTA about it—and, I think this is the important part of the story. To me, getting the API—that's not important. Publishing it, sending it to my hacker friends, sending it to my coder friends—that's not the important part. The important part and the unique part of the story is that the CTA did not react negatively or very strongly.

I think it was also how me and my partner Dan O'Neil kind of chose to follow through with it; we reached out to the CTA and we kind of said, "Hey, we'd like to show you what we've been working on." We kind of gave them the gist and met up with them. They were really upfront with us and were just like, "Don't break our stuff," but at the same time, they were like, "This is really awesome." It gave them a way to test an API without having to put the resources into building it. It was a great example of private/public sector working together ad-hoc… no planning, there's no contract, almost accidental —stumbled into it really.

AVC: Do you think the success of that is at least partially responsible for the CTA's launch of the Train Tracker beta?

HR: I think it's hugely responsible. I don't think that Harper Reed was responsible for that, but I think I was a little cog in the machine that led to that. What happened was, with the bus API, the question immediately came from almost every single one of these people, "When can I check the time of the

train?" And I think it's the natural thing. I even asked it to the CTA when we first went in there. I was just like, "Hey, you know, can we add a train to this?" And they were like, "You know, there are some technological limitations that are stopping us from adding trains." That was a while ago, and they seem to have fixed them.

AVC: What other city services could conceivably open up their data and improve people's lives?

HR: So, **See Click Fix**—what they do is basically allow you to do non-emergency reporting. You could say—obviously right now it's very topical in Chicago—my alley is not plowed, or there's a giant pothole on my street, a lot of rain settling here, or whatever it may be. They just allow you to report, and they work on pushing that data into the city. What would be really great is if the city pushed that data out to us a little bit more. Where are all those potholes? Where is the graffiti? Chicago, compared to some of the other cities in the U.S. and in the world, is an amazingly clean city. There's a lot of city stuff that goes into that. I'm pretty sure that all of the CTA workers that are cleaning up have location devices that tell them where they are. So how cool would it be to be able to look at that and do some analysis and say which CTA station is the cleanest, or which station is left alone, or which station is the dirtiest but regularly cleaned up?

Some of the stuff that is a little bit more tumultuous—pothole data, the money that alderman get, what they're doing what that money, all that TIF shit—I think there's so much that is out there that could really change politics in Chicago, change everything in Chicago. There's not a super interest in letting that stuff go, as you can imagine.

AVC: You had a year in review post on your blog that summed up your social media activity in 2010 along with more personal statistics, like average bedtime, most steps in a day, and weight fluctuations. What was the catalyst behind that?

HR: I think that this goes back to my love of data. My wife read an article that talked about geeks and fitness and how often geeks had a hard time getting involved with fitness until you start giving them graphs, stats, data, and all this random stuff. I don't own tennis shoes. I always think about going to the gym, and I get really stressed, because I'd have to buy new clothes—like I have no idea how I'd even workout, I have no idea to do that. But with that said, you can kind of achieve a lot by just tracking how many steps you take, how much you weigh, what is your sleeping like. And there's technology right now that will let you do that without doing any work.

AVC: You also have a highly detailed record of books you've read and concerts you've attended. Something like that, where it's very much a conscious effort, is that still about your love of data?

HR: Yeah, I mean I scan all of my ticket stubs, and the first thing I'm thinking is, "How do I put this into a spreadsheet so I can look at it and figure out how much time did I spend at concerts, how much money did I spend over all these years, what artists did I spend the most money on, or what artist did I see the most?" And I think there are a lot of opportunities to take this view of your life that's a little bit more data driven than memories. And I think memories—they fall apart. There's a point on one of those ticket stubs where someone commented and said this show couldn't have happened because so and so hurt themself. But then I'm like, eh fuck it, I think it did, because the ticket's torn. The data shows I went there based on how I curated this, but you never know.

AVC: Do you think your Internet identity defines your "real" life?

HR: All I do is use computers, so I guess that's a yes. But at the same time, I hope that I'm bigger than just the CTA hack. I think a lot of this stuff falls into why someone would do something that is open source. Why would somebody write software and then give the source back? It's just this excitement of giving people the thing you've built, and saying, "Go forth and build this." The movement is obviously much bigger than myself and much bigger than my contributions, but I'm excited to be any small part of that.

AVC: How does the open source movement fit with Chicago's emerging tech industry?

HR: Chicago's great for open source. I think one of the best things is that usually people in Chicago don't give a fuck about nothing or nobody. So what you have are things like Groupon just doing some crazy shit. Andrew Mason is an amazing, hilarious dude. I love it. All these people who are interacting and doing these amazing things, whether it's Adrian Holovaty from Everyblock, or whether it's the

guys at Threadless, or the guys at **37signals**, or whoever it may be, they're all blowing it up. And they're not blowing it up listening to anyone else. I think the trick is—and what's exciting about that—that Chicago leads with getting shit done. People aren't worried too much about, "Is it the right thing?" They're just worried about making sure it gets done, making sure it happens, and I think that's great. I think it's fun to be a part of. The tech industry right now is the best it's been since I've been here—and I got here around 2001—and I think that it's only getting better.

One of my favorite stories is how no one in Chicago knows that a lot of these companies are from Chicago. I don't know how many events I went to when I was with Threadless and said, "Hey, I'm with Threadless," and people asked if I was visiting, and the event could've been a block from Threadless.

AVC: What do you have planned for this year?

HR: I have a bunch of hacks that I want to get done and get launched, and I'm super excited about that. I'm working right now with creating a small organization to build tools for retail companies, so that's kind of exciting.

I also do some advisory work for money. A lot of that is great—it's really fun, and a lot of that is helping startups in Chicago. That's a huge thing I'm committed to, is making sure that startups in Chicago achieve success. Obviously, I make way less money than I once did, and that's fine. I'm just kind of trying to get to the point where we're making money again, but this time it's something awesome—I'm excited to achieve revenue. It's important stuff, "revs." I'm also excited about shortening words; I think it's really funny to shorten them. Like "revs," or instead of money, just "mon."

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