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# Twitter turns to Amazon's Mechanical Turk judges to deliver more contextual ads

Twitter has built a real-time human computation engine to help identify trending search queries, send them to humans to be evaluated and incorporated into back-end systems for more targeted ad placement.



Written by **Eileen Brown**, Contributor on Jan. 10, 2013



Twitter has realised that the using human decision making will pay dividends for its search results and ad placement. The [Twitter engineering blog](#) has reported that people turn to Twitter for news -- as if you didn't know that already.



Credit: Niabot

Major news happenings and sudden events hit Twitter and propagate rapidly.

The death of Michael Jackson, Osama Bin Laden and political gaffes such as Mitt Romney's binders full of women turned into trending topics within minutes.

Twitter knows that the transient nature of search terms and queries makes it impossible to be able to build up context over time as to what the hashtag means for that instance.

Is #BindersFullOfWomen a stationery enquiry or a political theme? Is '#AshTag a spelling mistake for

the hashtag or a reference to the eruption of the Eyjafjallajökull volcano ([pronounced](#) "AY-uh-fyat-luh-YOE-kuutl-uh") in Iceland which stopped all air travel over Europe?

Twitter has now built a 'real time computational engine' to help it identify search queries 'as soon as they are trending'. The queries are sent to real humans to be judged and then incorporated into the back end systems to bring more relevant search results.

The back end system tracks statistics and monitors for spikes in these searches. The search is then sent to human evaluators, who will add context to the query such as images or add extra information to describe if the query relates to people, places or events.

After the human response is received, the information is then fed in to the back end systems to improve the context of the search response the next time the term is searched for.

Tasks are sent to [Amazon's Mechanical Turk](#), a vast available crowdsourced workforce on hand around the world to help with queries, categorising them and putting them in context.

Using crowdsourced workers enables Twitter to select 'highly trusted' judges from 'the best of Mechanical Turk' across all of the languages used by Twitter. Twitter says that it is easier to scale the workforce when required.

Twitter has invested in this real time human computation to please its customers. No, that is not us. Twitter's customers are its clients that pay Twitter for promoted tweets and ad placement.

Using humans to categorise search queries correctly ensures that it delivers the most relevant ads to users. Having human intervention ensures that searching will get you the results you want.

Searching for #BindersFullOfWomen will deliver targeted ads about politics not office supplies, and #Tablet gets you ads for hardware – not drugs.

Twitter needs to demonstrate its value to advertisers. Twitter's customers might question why they are paying for ads to be displayed next to irrelevant search results.

Customers might be paying to advertise to the wrong audience. Good ad placement is important for Twitter to avoid losing revenue.

Using Mechanical Turk is cheaper than hiring a permanent team of staff to cover the 'follow the sun' multi language model. Amazon 'provides a ready source of workers' to ensure scalability and to ensure that everyone is fully utilised and efficient.

And we can get a better search experience in Twitter -- filled with relevant ads and promoted Tweets.

 **Editorial standards**

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