Information Flow Experiments to detect News Personalization

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News Personalization

Adjust Sources

	+
Wall Street Journal	- +
New York Times	- +
Fox News	- +
CNN	- +
ESPN	- +
Save	Settings Reset Help

Active Personalization: News personalization settings

Suggested for you »

CMU grad's mission to supply fire trucks to Nepal a top priority

Tribune-Review - 17 hours ago

The Carnegie Mellon University graduate trained the two guides to be watchmakers and put them in charge of a factory in Nepal. It was destroyed in the first quake. He established the Soarway Foundation with Sir Ranulph Fiennes, a polar explorer and ...

Interested in Carnegie Mellon University? Yes | No

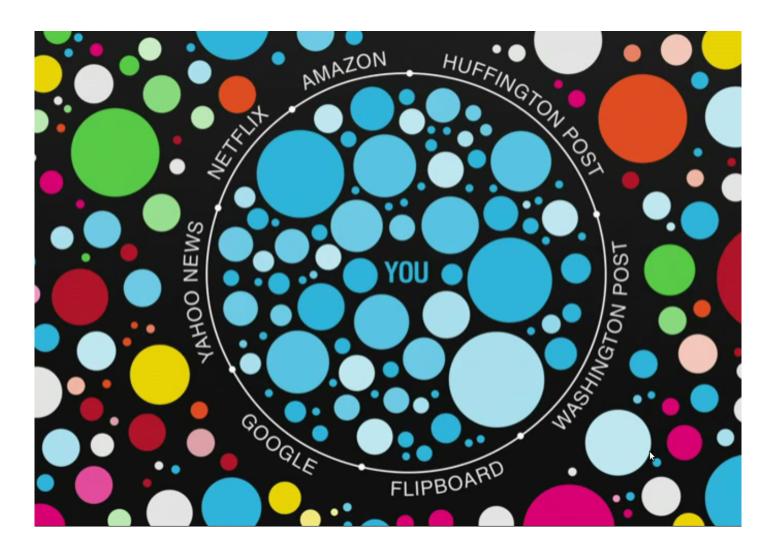
Conversations in Google Hangouts can be tapped

ndia Today - 10 hours ago

Inspite a growing awareness of surveillance and the occasional role of governmental organisations in it, an internet user may still be more vulnerable to being spied on. Even though there are many apps which guarantee 'NSA-proof' security, the ones ...

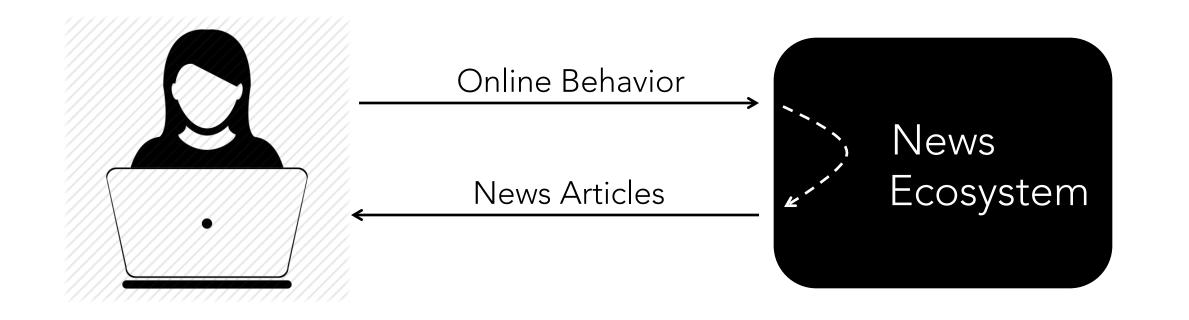
Interested in Google Hangouts? Yes | No

Expected Passive Personalization: Suggested Stories



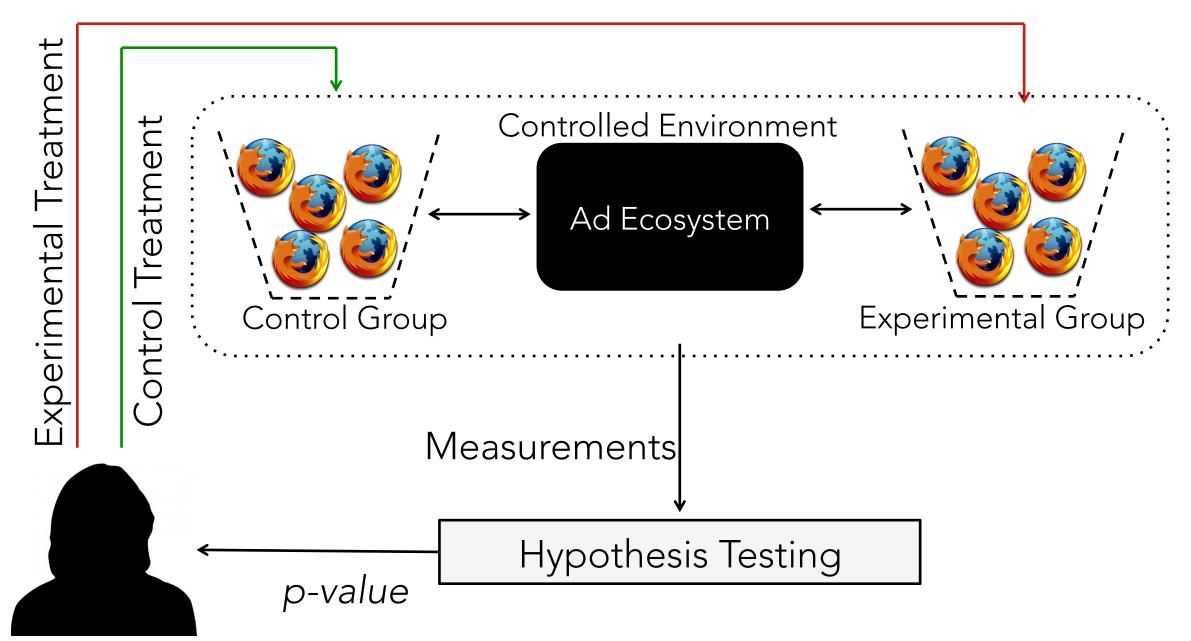
Unexpected Passive Personalization: Filter Bubbles

Information Flow Experiments



Methodology

Randomized Controlled Trials



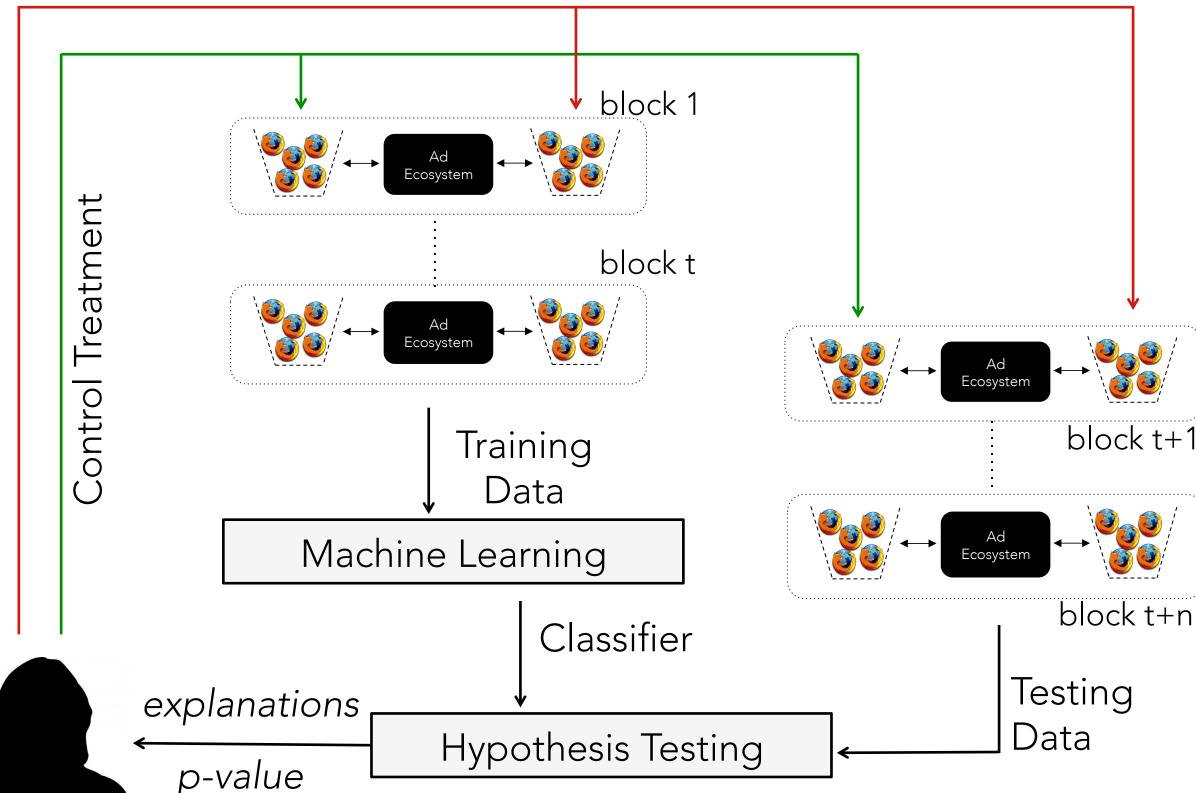
Experiments

Experiment	Length	Articles	Effect
Edit news personalization settings	14 hrs	145,542	Yes
Read news and perform search	164 hrs	-	Yes
Visit websites	28 hrs	147,296	No
Visit websites while signed in	28 hrs	148,861	No
Edit interests on Ad Settings	22 hrs	145,055	No
Edit interests while signed in	30 hrs	110,704	No
Sign in to a fresh account	21 hrs	146,534	No
Sign in to an existing account	55 hrs	141,539	No
Sign in to separate existing accounts	15 hrs	146,224	No
Read news from an agency	28 hrs	29,261	No
Read news from an agency while signed in	26 hrs	135,308	No
Read news from a category	34 hrs	131,404	No
Read news from a category while signed in	31 hrs	129,784	No

Conclusions

Blocked Randomized Controlled Trials

Experimental Treatment



• We find active personalization.

- We find expected passive personalization.
- We do not find unexpected passive personalization.

References

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Eli Pariser, The filter bubble: How the new personalized Web is changing what we read and how we think. Penguin, 2011.

S. Englehardt, C. Eubank, P. Zimmerman, D. Reisman, and A. Narayanan, "Web privacy measurement: Scientific principles,

engi-neering platform, and new results," Preprint, 2014.

