



THE FIGHT AGAINST eCOMMERCE FORM SPAM AND A SOLUTION

A White Paper Prepared by: Ellipsis Technologies, Inc.
June 2017

Ellipsis Technologies, Inc.
411 University Ridge, Suite 220. Greenville, SC 29601
www.ellipsis.tech.io | info@ellipsis.tech.io

Worldwide eCommerce sales hit \$1.9 trillion in 2016, up from \$1.5 trillion in 2015, while eCommerce sales are forecasted to be \$4.058 trillion in 2020 according to the same report. With this growth comes visibility, and the eCommerce community has become a common target for malicious hackers, led in large part by a host of spambots. A standard mode of attack is for a bot to bombard the contact, lead-generation, comment or product review forms of a site with an avalanche of commercial, political or other unwanted messages for true buyers and unsolicited emails to site administrators. This stream of spam creates an environment where real human customers find it too unwieldy to sort through the irrelevant and often meaningless content to read real buyer reviews and comments. In effect, this destroys the lifeblood of a successful eCommerce business--soliciting user input through buyer product reviews, endorsements and product usage comments. A recent Power Reviews study of Amazon online sales states that even a single review (as opposed to none) can increase sales of an item by 65%. Additionally, 20% of overall sales are driven by reviews, and at least one-third of customers report that they won't buy a product listed with no customer reviews.

Ellipsis Technologies, with its Human Presence™ technology, addresses this problem by identifying human site traffic through human behavior analysis. Form spam attacks can be executed through normal browser intrusions or out-of-browser methods via automated http requests to a form's action. Ellipsis tracks the movement characteristics of site users through the normal course of their site navigation whether these movements are keyboard entries, mouse movements or touches and swipes in the mobile and tablet environments. With their proprietary machine learning algorithms, Ellipsis is able to determine if a visitor is behaving like a human, or not. Ellipsis then allows the site owner to direct traffic accordingly; e.g. humans can continue on the site unencumbered while all suspicious traffic can be routed elsewhere. Further, Ellipsis is able to detect out-of-browser bot attacks through a proprietary three prong approach, with the objective of fully protecting an eCommerce site and allowing for a more usable customer experience.

Current solutions, which are predominantly in the Turing Test category, require a human interaction and response which are in themselves annoying to site visitors who simply came to an eCommerce site for information and to buy a product. CAPTCHA is the most popular Turing Test and the one which most eCommerce site owners are familiar. Research has shown however that a large percentage of prospective buyers depart a site immediately upon being presented with a CAPTCHA and as many as 40% fail on the first attempt, decreasing the customer experience and stopping prospective customers before they can complete a transaction.

The Ellipsis Human Presence™ technology works in the background, is totally invisible to site visitors and requires no interaction or response at all, allowing site visitors to shop without encumbrance. Ellipsis Human Presence™ is available as an eCommerce solution to combat form spam as a plug-in through both the Shopify and WordPress app stores. Human Presence™ is also available as a stand-alone solution by contacting Ellipsis directly at info@ellipsisistech.io