

# Usability Evaluation of Navigation Interfaces that Allows Holding a Tablet with Both Hands / Revital Turgeman

## Abstract

Tablet computers (tablets for short), are hand-held touch-screen devices which are a hybrid between mobile phones and personal computers. They are lighter than personal computers and therefore easier to carry around, however they are bigger than mobile phones and therefore allow for better visualization (e.g. for watching movies) and more complicated hand gestures (e.g. for games) than mobile phones. Tablets also allow for some computer functionality, but are not designed for full day office work as their operating systems typically stem from mobile phone operating systems.

Tablets have been with us for a long time, but their popularity rose dramatically with the launching of the iPad in 2010. The iPad introduced the captive touchscreen technology that (unlike the resistive touchscreen technology) uses the fingers' conductivity and allows for multi-touch gestures. According to Statista (Statista, 2017) there are currently over a billion tablets used worldwide.

In 2010, right after the iPad was launched, Norman & Nielsen had published an article entitled "Gestural interfaces: a step backward in usability" (Norman & Nielsen, 2010). They claimed that when using touchscreens anything you show and touch can be an interface, and as a result there are no standards and users do not know what to expect. There is a lack of established guidelines for users' gesture control.





