# GoDIGITAL

# Interactive Whiteboard

# 3.2 INTERACTIVE WHITEBOARD

### 3.2.1 Know introduction to IWB and its history

An **interactive whiteboard**, also known as a smart board, is an interactive display in the format of a whiteboard that reacts to user input either directly or through other devices. It is an external hardware you connect to your computer.

The interactive whiteboard was originally envisioned by David Martin and Nancy Knowlton in 1987. Soon after, they co-founded the company SMART Technologies and introduced the world's first SMART Board in 1991. While the original concept was to create a device that would function as a whiteboard and computer, by the time it was presented to the market, the touch sensitive application had also been added (SMART Tech, 2012). The purpose of that key feature was to include the ability to control the board with the touch of a finger in a way that allowed the user to write over Microsoft Windows applications presented on the screen ("Interactive Whiteboards", 2010).

*Every interactive whiteboard system requires three basic components: **a computer, projector and the interactive whiteboard**. To use it, the projector is connected to both the computer and IWB so that the document or media opened on the computer is displayed for the audience on the screen. In contrast to previous conventional computer and projector setups, the user controls the IWB directly from the surface of the screen either by using the special pens accompanied with the board or with the touch of a finger. In this way, the user can interact with the IWB so as to more readily engage the audience. ("SMART Tech", 2012).*

### 3.2.2 Understand general use of IWB and setting up

An Interactive Whiteboard (IWB) **is a touch-sensitive board that is usually connected to computer and digital projector, so in this way images may be projected on the interactive whiteboard surface.** Nowadays, some models have an integrated projector behind the screen, which makes them more convenient with fewer wires and no shades on the screen, but these models are more expensive.
When you touch the interactive whiteboard's surface, the four cameras located in the interactive whiteboard's corners detect the contact's horizontal and vertical coordinates. The computer interprets these coordinates and moves the pointer to the corresponding location on the interactive whiteboard's surface.
The computer connected to the interactive whiteboard can be controlled by touching the board directly with fingers or by using a special pen (stylus). Interactive whiteboard is widely considered to be a positive and motivational asset to the classroom. Teachers can enrich their instructions with different kind of techniques like use visual, auditory and kinaesthetic types of learning, which can help increase students attention and participation.

More information about starting the interactive whiteboard you can find: https://studylib.net/doc/8850287/quick-reference-smart-board-interactive-whiteboard-basics

You can visit this website in order to check how to set up IWB.
https://www.wikihow.com/Set-Up-a-Smart-Board?fbclid=IwAR2D29WSX2Fz2NGPbKky8vHNrJOD4xHtOeMSlw5DVcrtGXK4y-On5UZqoj4

### 3.2.3 How to choose suitable software

The real effectiveness of IWB technology is not only hardware. It is a specialised software that gives extra functionality to the board. This specialised software is usually in the form of 'notebook' or 'flipchart' software that behaves a little like Microsoft PowerPoint but with additional functionality, including the ability to let you drag objects around the screen freely. Every IWB comes with their own software, which provides characteristics specifically made to maximize interaction opportunities. A lot of software tools mostly have some patterns and educational types that are available for teaching, which allow working in a more collaborative way and also allow teachers to present material in more interesting way.

Currently, there is a dominance of two major brands on the IWB market - **SMART and Promethean**, which also affect the way other IWB software evolves. There are probably valid reasons for this current dominance as both SMART and Promethean were pioneers in the field and made an early commitment to the education sector. They are both relatively mature, stable products with strong company support, but still more importantly they have a huge community of users who all share resources freely via an online marketplace. Nevertheless, the lack of compatibility of resources between both brands might cause problems, even though the situation is starting to improve.

*SMART Notebook Software* is built for education and designed for schools. With the options that the technology offers, the creation of interactive lessons will be quick and easy. Notebook has a lot of free exercise assets, which makes it easier to organize game-based learning, so it helps keeping the attention of students. A lot of guides and practical video are available on the Internet explaining how to work with Smart Interactive Whiteboards.

*ActivInspire* is a collaborative lesson delivery software for interactive displays developed by Promethean. ActivInspire provides a vast suite of tools to create and deliver dynamic lessons. Students are encouraged to work together thanks to dual-user and multi-touch functionality for interactive displays.

*OpenBoard* is teaching software for interactive whiteboard that is primarily used in schools and universities. It gives the opportunity to have a different teaching method while using current teaching tools. The purpose of this software is to make learning a lot more effective.

*MozaBook* is educational software that allows you to do versatile teaching, presentations and animations. It also gives you access to media library where you can find a lot of educational videos and audio files that help you keeping the student attention.

### 3.2.4 IWB in the classroom

Interactive whiteboards are available in both a **fixed or mobile** design. For a large classroom with more students, a larger fixed whiteboard would probably be more suitable. On the other hand, in schools with limited budget a mobile whiteboard may be more economical option, as the whiteboard can be shared among classrooms.

The wall, where the board is supposed to be placed, needs to be empty, any existing equipment should be removed, so the readability of the screen will be ensured. The board should be positioned away from glare from the windows, somewhere where the class can see it easily and users can stand from both sides. Consider putting blinds to a room that gets a lot of sunlight in summer and make sure the blinds really reduce the sun's glare and are not too pale. The teacher should be able to reach the top of the board and kids should be able to reach at least the half.

You can find more information about positioning of the interactive whiteboard and its installation on this link: https://support.rm.com/TechnicalArticle.asp?cref=TEC326369

### 3.2.5 Being able to orient IWB

Sometimes, when you turn on your interactive whiteboard, the cursor can appear somewhere else from the place you are pressing. In most cases, the touch surface must be initially calibrated with the display image. This process involves displaying a sequence of dots or crosses on the touch surface and having the user select these dots either with a stylus or their finger. This process is called **alignment, calibration, or orientation**. Fixed installations with projectors and boards bolted to ceiling and wall greatly reduce or eliminate the need to calibrate.

On the Orientation screen you should see the cross in the left side. Press your pen in the middle of the cross (and do the same for every cross that appears next) in order to complete the orientation of IWB. Check the video below in order to understand better the process of calibrating of the interactive whiteboard.

*Figure 4 Orientation of the Interactive White Board[2]*

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