# From Blackboards to Virtual Boards - A Paradigm Shift in the Way of Understanding the Teaching and Learning Processes

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*Abstract*

*Blackboard, the most widely used teaching aid has undergone a complete transformation in the last few years. On the way to the digital learning, the blackboard has been replaced by interactive whiteboards. But again, when we switched over to online teaching, interactive whiteboards were replaced by online whiteboards. This paper traces this shift and analyses the possibilities this shift has opened in teaching and learning processes.*

## Introduction

Blackboard is the most ubiquitous visual aid that we see in every classroom. It plays a vital role in making the instructional process more effective. The blackboard has a very long history. Alberuni's Indica, an 11th-century book has references to show that blackboards were in use in Indian schools at that time. The effective use of blackboard is stressed in every teacher training course and the B.Ed. trainees are given micro-teaching skill training on how to use a blackboard during their training period. But of late, we witnessed this essential teaching aid is getting faded into oblivion. It has been replaced by interactive whiteboards paving the way for a paradigm shift in understanding the teaching and learning processes.

## Interactive Whiteboards

An interactive whiteboard differs from a blackboard in its ability to interact. Students and teachers can interact with the board using a pointer or by touch. This makes the students actively participate in their own learning. These boards open new possibilities in the learning and teaching processes. They are intuitive and easy to use. They promote flexibility and helps teachers design their classroom activities to fulfil their classroom goals. The size of the text and images can be increased to accommodate visually challenged pupils of the class.

Most of these boards come with internet connectivity and works as a multimedia information resource. Teachers can search for any image or diagram by using the inbuilt google image search engine and dragging it to the centre of the board for explaining it.
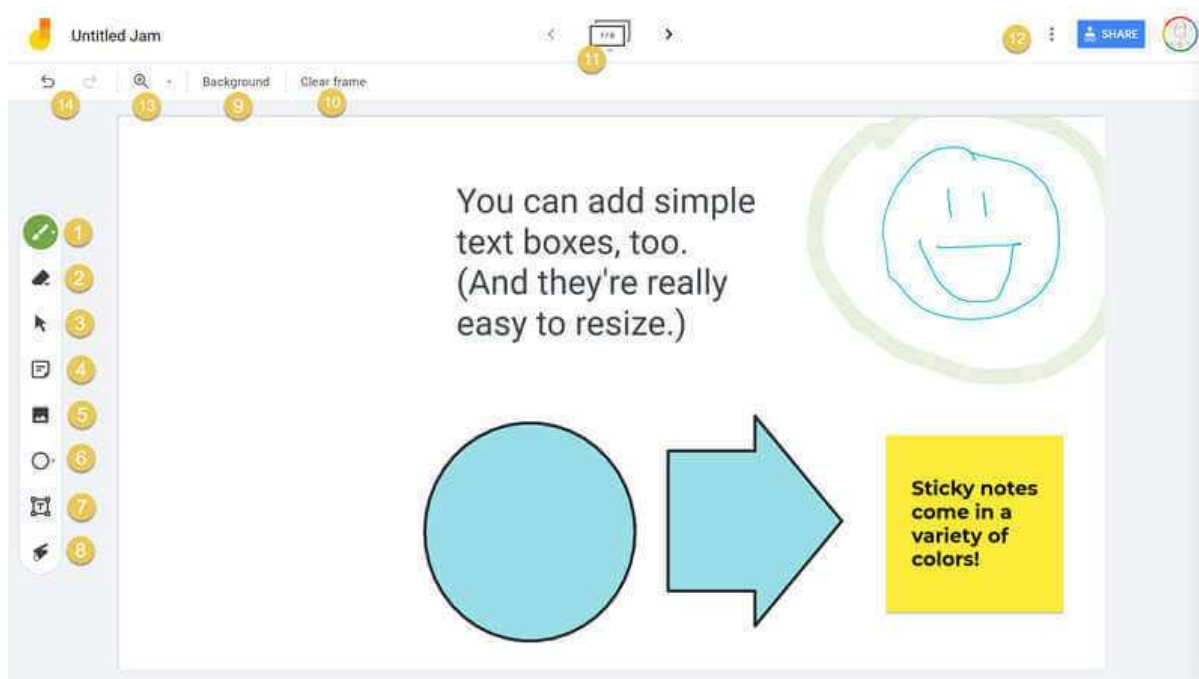
Interactive whiteboards stimulate learning by motivating children. As a result, the atmosphere in the class is completely changed and students attentively participate in classroom activities. All these promote better learning in the class. Another advantage of using the interactive board is its streaming ability. What is happening in one class can be streamed to other classes so that students can be engaged.

## Online Whiteboards

An online whiteboard is not a fixture in a classroom, but it is a software or application that shares a white screen on different screens on the internet. Accessibility is the most attractive feature of an online whiteboard. It can be downloaded or accessed in browsers. As it is cloud-based it is compatible with most devices. Online whiteboards support all types of files and the number of users it can accommodate is more

than a classroom can accommodate. Let's analyse some of the most feature-rich and popular virtual boards to gauge the possibilities they offer.

### 1) Jam board from Google:



Taken from https://ditchthattextbook.com/jamboard/

Jam board is a digital board from google which is available in three different formats-

a) a 55-inch digital whiteboard,

b) a virtual board that can be accessed via the browser

c) a mobile application that can be installed from the Apple store or Play store.

We can share the Jam session with our students whether they are using a mobile phone or a computer or a Jam board device. Thus, it overrides all kinds of compatibility issues. One of the most attractive features of the Jam board is that it allows 50 collaborators at a time. The other major features are as follows

### i). Easy collaboration

Jam board is incorporated in google meet and if you are in a meeting Jam board can be shared with the click of a button. Link sharing on other social media apps is also available. 50 participants can work on the Jam board at a time. It makes the teacher conduct a session that is truly interactive, collaborative, and highly productive.

### ii) Laser pointer

Google has included a laser pointer in the Jam board to emphasize important items during the session. So, we can invite the participant's attention where we really need it.

### iii) Google image integration

We can create stunning visual teaching aids using the image tool inside the Jam board. We can bring images, diagrams, etc. onto the board to illustrate complex concepts in the simplest ways.

### iv) File sharing

Google Drive files can be easily shared via Jam board. This enables the teacher to give assignments using google doc or google form or sheet and also to share infographics and other learning materials easily

v) **Multiple boards**

No need to erase the board to write again. we can create multiple pages on the Jam board. This will help the students to revisit the earlier pages in order to understand what is taught in the class better.

v) **Save as PDF**

Another useful feature that the Jam board offers is that it can be saved as a pdf and shared with the students for later reference. This is very useful for the students when they prepare for their exams.

As all smartphones come with touch screens, Jam board's mobile application is very popular. You don't need a stylus to write.
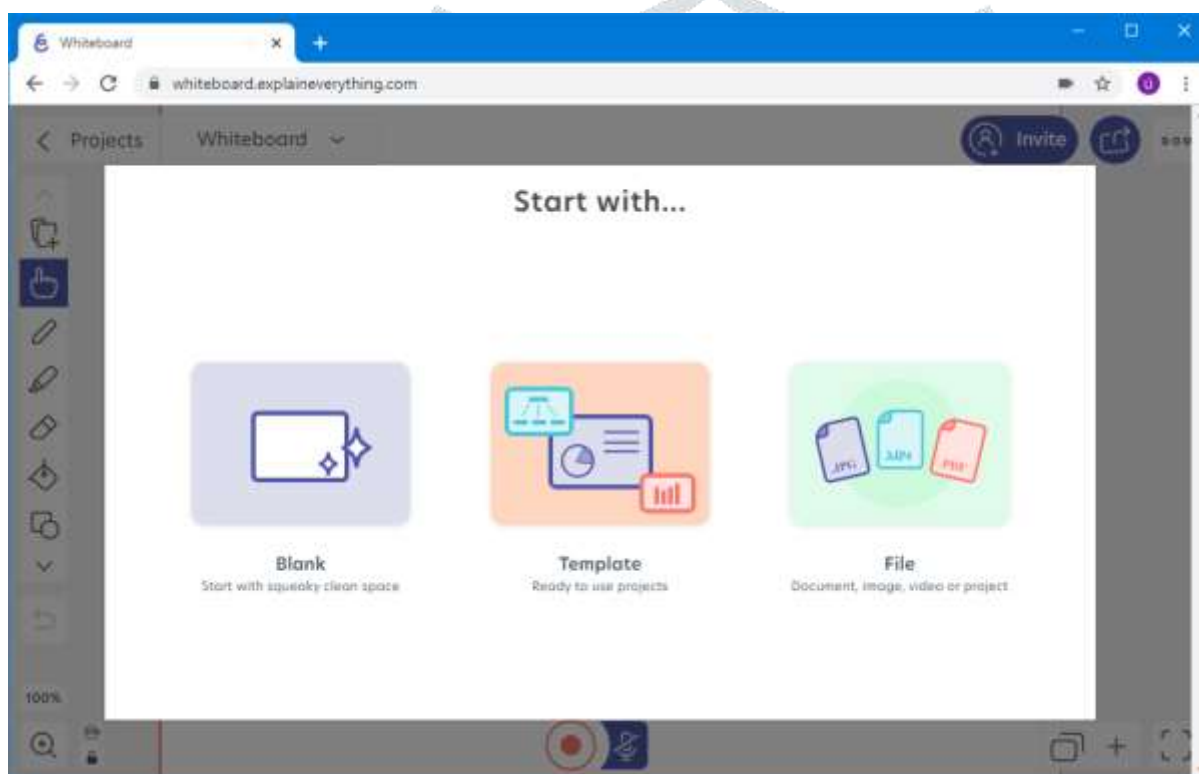
## 11. Explain Everything



Image   Courtesy-   https://www.free-power-point-templates.com/articles/explain-everything-interactive-whiteboard-app-with-voice-chat/

Explain everything is another virtual board that is very popular among teachers and offers more features than Jam board. It is an all-in-one tool collaborative whiteboard platform. You can present your ideas, record it as a video and collaborate with others. This board allows you to add drawings, images, videos, PDFs and documents. The other major feature of this board is as follows

i) **Screen casting**

You can add your own narration to whatever you do on this board, and you can share it as a video. This is possible through the integrated screen recording with the voice feature.

2) **Assignment correction**

Students submitted assignments can be opened on this board as it supports all kinds of file formats, then share the board with that student and start correcting her assignment. It gives a feeling that the correction is done sitting side by side.

3)**Integrated clipart library and Unsplash photo library**

If you need a picture, you can drag it from the clipart library or Unsplash and use it whatever way you want. It is a collection of beautiful, royalty-free pictures.

4) **Supports a wide variety of file types**

Explain everything supports all types of file formats so it is easy to load presentations, spread sheet etc. directly on the board and share it among students.
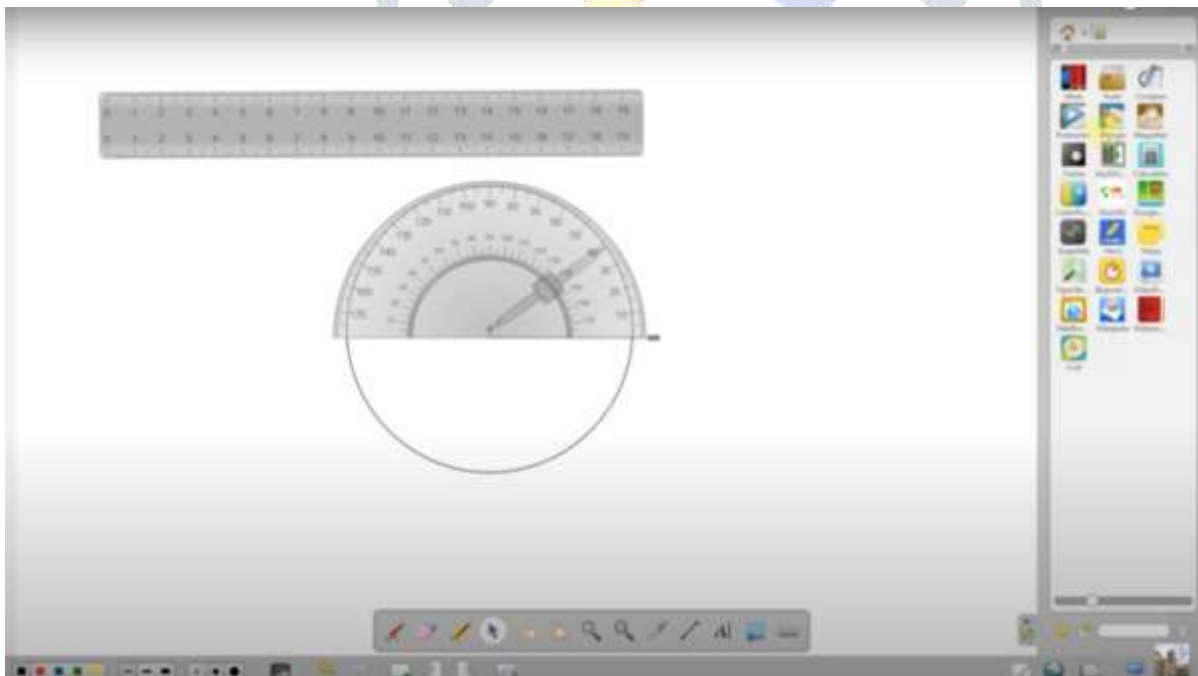
5) **Manipulate images, audio and video**

It has a built-in image editor for cropping and colour removal. You can play, watch, listen, scrub, rewind and loop videos and you also can annotate over them and mix them with other media.

6) **Supports all major video conferencing tools and LMS**

It works on all major learning management systems like Moodle, Blackboard, Google classroom and Schoology. It also supports video conferencing tools like MS teams, Google meet and Zoom.

### 111.Open board



The open board is from the Education Department (DIP) of the canton of Geneva, in Switzerland with financial and logical support from the University of Lausanne. In their words "Open board is an open-source cross-platform teaching software for interactive whiteboard designed primarily for use in schools and

universities. It can be used both with interactive whiteboards or in a dual-screen setup with a pen-tablet display and a beamer". It is not a cloud-based software but it supports Windows, Mac and Linux operating systems. The following are the major features it offers

i) **Integrated application library**

One of the most useful features that open board offers is the built-in application library that contains various collaboration tools like calculator, notes, ruler, protractor, compass, stopwatch, Google Maps, Wikipedia, and more.

2) **Side panel stylus bar**

This stylus bar contains all the tools to manipulate text which include a virtual keyboard, a highlighter, an eraser, and a zooming tool

3) **Integrated interactive module**

This allows the teachers to create custom activities meant for each task such as Jumbles sentences number sequences etc.

4) **The all-powerful document manager**

This allows the users to import, export categorise and duplicate various types of files.

As it is designed by the Education Department (DIP) of the canton of Geneva, it is considered one of the most feature rich and the most suitable application for schools and colleges. It works on most other third-party applications as well.

**Conclusion**

A black board is a timeless aid in the process of teaching and learning. The changes it has undergone in the last few years are remarkable. From the writing board, it has grown to a collaboration tool, a brainstorming canvas, and an application to design all your classroom activities. Thus, it has revolutionized the teaching and learning process and has caused a paradigm shift in our classroom approaches.

**References**

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