**What is Microsoft Surface?**

**It’s a visually compelling powerful technology. Surface is a horizontal display on a table-like form factor that morphs from an ordinary table-top into a new, vibrant way to bring connected entertainment and digital content to users. The cool factor is the way you interact with digital content by using your hands to get what you need. Surface provides effortless interaction with digital content through natural gestures, touch and physical objects. Because Surface is essentially housed in a table, it’s easy for individuals or multiple people to gather around it in a way that feels familiar – making collaboration more powerful and fun.**

**Surface lets us manipulate a tremendous amount of information with our hands so that the content works with you rather than for you. For example, with Surface’s mapping application, you can manipulate a map and move it, shrink it and access personalized data for local sites, attractions and venues.**

**Microsoft's definition of surface computing: direct interaction (for example, you might "dip" your finger on an on-screen paint palette, and then use your finger to draw on the screen); multi-touch contact, so the screen can react to multiple fingers and inputs simultaneously; multi-user experience, so multiple people can gather around and interact with the screen simultaneously; and object recognition, so the surface can recognize tagged objects and interact with them.**

**Advantages of Multi-touch Technology:**

**􀂙 The administration of a classroom can be improved by reducing the amount of time a teacher spends fulfilling paperwork requirements alone, such as test taking and scoring. The tests could be included in each student’s desktop and automatically recorded and scored.**

**􀂙 The teacher's desktop could have the ability to look at each student's desktop from their desk and take control if necessary. This can be used to help a student having trouble or to verify that the student is staying on task.**

**􀂙 Also, teachers would have the ability to send presentations to any or all desktops eliminating the need for print outs and copies.**

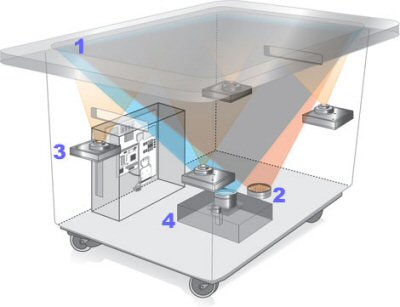
**􀂙 A chat system like IM could be set up so that the teacher could send a private note to a student during a class exercise without bringing attention to the student whether it is positive or negative.**

**􀂙 If a problem occurred on one Surface, that student could move to another student’s desk and work along with them until theirs was fixed.**

**􀂙 By engaging the students and combining both the audio and visual aspects in every lesson plan, we have a better chance of reaching every student and increasing the percentage of information retained.**

**􀂙 Students will be able to work in groups at one desktop Surface. This would make the construction of projects easier. Also, students will be able to work on class assignments together or help each other and sometimes students are able to learn and understand better when the information is delivered or reiterated from their peers in a more creative fashion**

**TECHNICAL ASPECT**

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**1) Screen  
 There is a diffuser which turns the Surface’s acrylic tabletop into a large horizontal “multitouch” screen, which is capable of processing multiple inputs from multiple users. The Surface is so far advanced than we could imagine that it can recognize objects by their shapes or by reading coded “domino” tags when placed on the table.**

**2) Infrared  
 Surface’s “machine vision” operates in the near-infrared spectrum, using an 850-nanometer-wavelength LED light source aimed at the screen. When objects touch the tabletop, the light reflects back and is picked up by multiple infrared cameras with a net resolution of 1280 x 960.**

**3) CPU  
 Surface uses many of the same components found in everyday desktop computers — a Core 2 Duo processor, 2GB of RAM and a 256MB graphics card. Wireless communication with devices on the surface is handled using WiFi and Bluetooth antennas (future versions may incorporate RFID or Near Field Communications). The underlying operating system is a modified version of Microsoft Vista.**

**4) Projector  
 Microsoft’s Surface uses the same DLP light engine found in many rear-projection HDTV’s. The footprint of the visible light screen, at 1024 x 768 pixels, is actually smaller than the invisible overlapping infrared projection to allow for better recognition at the edges of the screen.**

**CONFIGURATION**

* **Display Type: 30-inch Flat panel display**
* **Orientation: Horizontal**
* **CPU: Core 2 Duo processor**
* **Processor: 1 GHz processor.**
* **Installed Memory: 2GB of RAM**
* **Graphics Card: 256MB graphics card.**
* **Projector: DLP light engine like the one used in rear-projection HDTV.**
* **Cameras: Five cameras with infrared filters - net resolution of 1280 x 960**
* **Surface: Not touch-sensitive surface. When you place or drag a finger, internal projector lights screen from beneath.**
* **Power Supply: Standard American 110–120V power**
* **Operating System: The custom software platform runing on Windows Vista**
* **Network Connectivity: Wired Ethernet 10/100 and wireless 802.11 b/g and Bluetooth 2.0 connectivity.**
* **Dimensions: 22 inches high, 21 inches deep and 42 inches wide.**
* **Weight: 150 pounds**

**AFFECTS ON INDIAN LIVING:**

* **We have seen Tablet PC being used in the USA, how many are there in India? There could be some display in a retail store in a 5 star hotel in Mumbai or Delhi. Or there could be a display in Bangalore Center or Hyderabad Center shopping malls.**
* **But is it going to change life of anyone in India? Not at all.**