Vasavi College Of Engineering

TECHGYAN

Department Of Computer Science & Engineering

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In This Issue

EDITORIAL –

Brainstorming

brainstorming technique for problem-solving, team-building and creative process.

Brainstorming with a group of people is a powerful technique. Brainstorming creates new ideas, solves problems, motivates and develops teams.

However, brainstorming is not simply a random activity. Brainstorming needs to be structured and it follows brainstorming rules. The brainstorming process is described below.

brainstorming process

1. Define and agree the objective.
2. Brainstorm ideas and suggestions having agreed a time limit.
3. Categorise/condense/combine/refine.
4. Assess/analyse effects or results.
5. Prioritise options/rank list as appro priate.
6. Agree action and timescale.
7. Control and monitor follow-up

In other words: plan and agree the brainstorming aim

Ensure everyone participating in the brainstorm session understands and agrees the aim of the session (eg, to formulate a new job description for a customer services clerk; to formulate a series of new promotional activities for the next trading year; to suggest ways of improving etc). Keep the brainstorming objective simple.

Allocate a time limit. This will enable you to keep the random brainstorming activity under control and on track.

manage the actual brainstorming activity

Brainstorming enables people to suggest ideas at random. Your job as facilitator is to encourage everyone to participate, to dismiss nothing, and to prevent others from pouring scorn on the wilder suggestions. During the random collection of ideas the facilitator must record every suggestion on the flip-chart. Use Blu-Tack or sticky tape to hang the sheets around the walls. At the end of the time limit or when ideas have been exhausted, use different coloured pens to categorise, group, connect and link the random ideas. Condense and refine the ideas by making new headings or lists.

implement the actions agreed from the brainstorming

Agree what the next actions will be. Agree a timescale, who's responsible. After the session circulate notes, monitor and give feedback. It's crucial to develop a clear and positive outcome, so that people feel their effort and contribution was worthwhile. When people see that their efforts have resulted in action and change, they will be motivated and keen to help again.

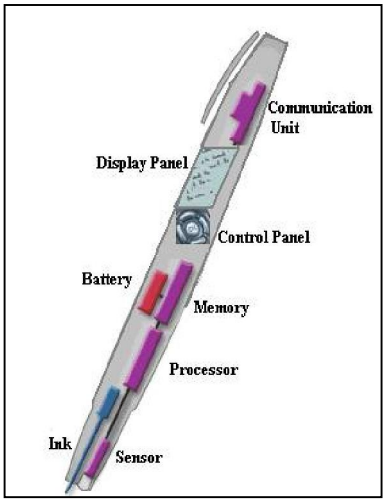
Dipali Pattanayak,

Asst.Prof,CSE

Smart note taker

The Smart Note Taker provides taking fast and easy notes to people who are busy one's self with something. With the help of Smart Note Taker, people will be able to write notes on the air, while being busy with their work. The written note will be stored on the memory chip of the pen, and will be able to read in digital medium after the job has done.

The product will be able to sense 3D shapes and motions that user tries to draw. The sensed information will be processed and transferred to the memory chip and then will be monitored on the display device. The drawn shape then can be broadcasted to the network or sent to a mobile device.



There will be an additional feature of the product which will monitor the notes, which were taken before, on the application program used in the computer. This application program can be a word document or an image file. Then, the sensed figures that were drawn onto the air will be recognized and by the help of the software program we will write, the desired character will be printed in the word document.If the application program is a paint related program,

then the most similar shape will be chosen by the program and then will be printed on the screen.Since, JAVA Applet is suitable for both the drawings and strings, all these applications can be put together by developing a single JAVA program. The JAVA code that we will develop will also be installed on the pen so that the processor inside the pen will type and draw t the desired shape or text on the display.

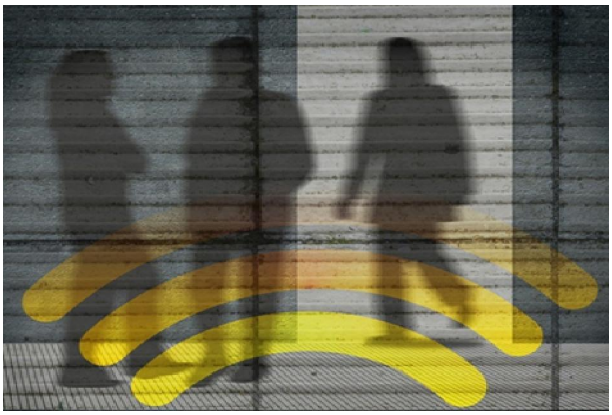
-P.Sowjanya, BE 2/4, CSE -A

See through walls(Wi-Vi)

A technology that lets you see behind walls could soon be built in to your cell phone.

MIT professor Dina Katabi and graduate student Fadel Adib have announced Wi-Vi, a demonstration of a technology that uses Wi-Fi to allow a viewer to "see" a person moving behind a wall. (Wi-Vi stands for "Wi-Fi" and "vision.")

The new device uses the same wireless antenna as is found in a cell phone or laptop and could in theory one day be embedded in a phone.



The trick is canceling out all interfering signals – Wi-Fi doesn't just bounce off humans, but also walls, floors, and furniture. And those signals are 10,000 to 100,000 times more powerful than the reflections off a human body.wi-vi sends out two wireless signals, one of which is the inverse of the

To silence the noise, the structure of the Wi-Fi signal is changed so all the undesired reflections cancel. The device is meant to be portable so, for example, a person worried that someone was hiding in the bushes could do a quick scan for his/her personal safety. Wi-Vi could also serve as a high tech baby monitor or help the cops in catching thieves.

-Shravani Challawar, BE 2/4, CSE-B

Google chrome cast

Chrome cast is a digital media streaming adapter developed by Google. The device plays audio/ video content on a high-definition television by streaming it via Wi-Fi from the Internet or local network. Users select the media to play on their television from the Google Chrome web browser on a

personal computer or from a supported app on their mobile device.

Features and operation:

Size: 2.83 inches(72mm).The device works across several platforms and operating systems Android, IOS, Chrome OS, and Google Chrome on Windows andOS X through a browser extension.

Chrome cast uses DIAL (Discovery and Launch) protocol to search for available devices on a Wi-Fi network.

Hardware:

The Chrome cast contains the Marvell 88DE3005 system on a chip. The device has 512 MB of Micron DDR3L RAM and 2 GB of flash storage.

Softwareimplementations:

Google released a beta "Google Cast SDK" to allow developers to make their applications compatible with Chrome cast. Developers must create a "sender" app for Google Chrome, Android, or IOS to send the media, along with a "receiver" page that appears on the Chrome cast device to play the content.

-Kavya setty, BE 3/4, CSE-A

LEAP -A tiny device with a huge idea

LEAP, the Long range Energy Alternatives Planning System, is a widely-used software tool for energy policy analysis and climate change mitigation assessment developed at the Stockholm Environment Institute.

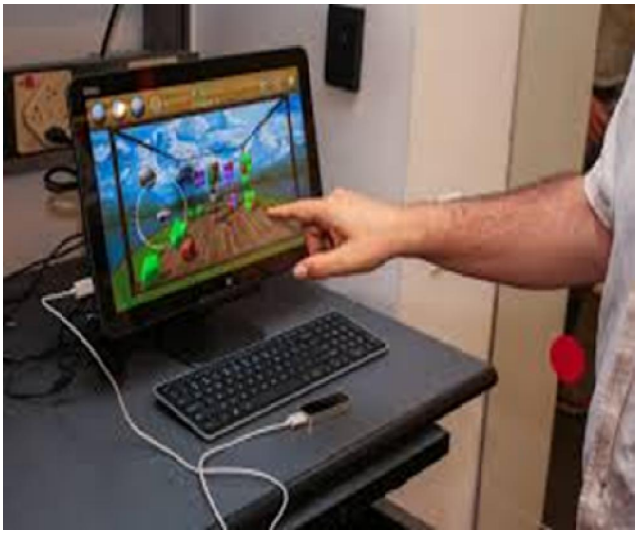
Imagine if you could do things on your computer just like you do them in real life. If natural movements replaced all those clicks and taps and drags and drops. Imagine if technology finally figured out people, instead of the other way around. That's

how we see the future.

The Leap Motion Controller senses your hands and fingers and follows their every move. It lets them move in all that wide-open space between you and your computer. So you can do almost anything without touching anything! It lets you control the desktop with fingers, but without touching the

Multi-touch desktop is a (miserably) failed product due to the fact that hands could get very tired with prolonged use, but leap motion wants to challenge this dark area again with a more advanced idea. It lets you control the desktop with fingers, but without touching the screen.

It's not your typical motion sensor, as Leap Motion allows you to scroll the web page, zoom in the map and photos, sign documents and even play a first person shooter game with only hand and finger movements. The smooth reaction is the most crucial key point here.



Airspace home or Airspace store is the same where you can find many different kinds of apps which you have never seen.

-T.Nishanth, BE 3/4, CSE-B

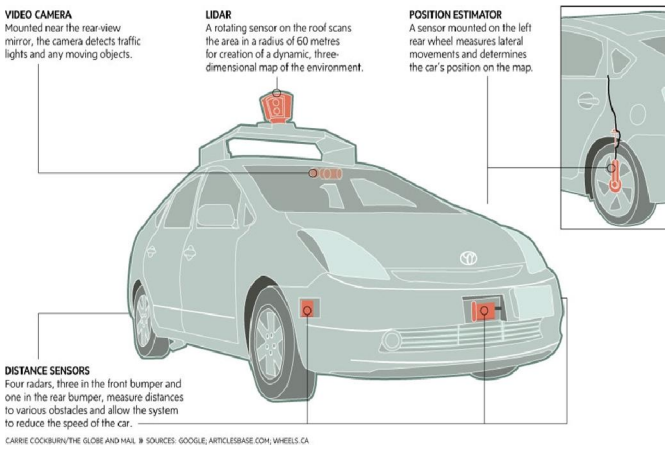
Google driverless car

INTRODUCTION::

The Google Driverless Car is like any car, but:
A)It can steer itself.
B)It can accelerate itself to speed limit.
C)It can stop and go itself based on traffic.

COMPONENTS:

Integrates Google Maps with various hardware sensors and artificial intelligence software Google Maps Provides the car with road information Hardware Sensors Provides the car with real time environment conditions Artificial Intelligence Provides the car with real time decisions



SENSORS:

The hardware sensors gives real time environmental properties. Environment is dynamic so need real time results. Sensors attempt to create fully observable environment.

LIDAR:

LIDAR "Heart of our system" LIDAR (Light Detection And Ranging, also LADAR) is an optical remote sensing technology that can measure the distance to, or other properties ght , often using

using pulses from a laser . Scanning distance of 60 meters (~197 feet).

VIDEO CAMERA:

Detects upcoming traffic light. Distance sensor Allow the car to "see" far enough to detect nearby or upcoming cars or obstacle. Position estimator(Wheel Encoder) Determines vehicle's location and keeps track of its movements.

ARTIFICIAL INTELLIGENCE:

Goal of AI is to take the passenger to its desired destination safely and legally .

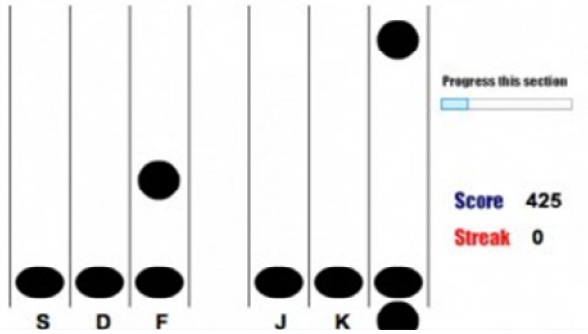
-Sindusha Grandhi, BE 4/4, CSE-A

Sub conscious security

A team of neuroscientists and cryptographers have developed a prototype system which uses the concept of implicit learning to store a 30 character password in subconscious memory. Eliminating the annoyance of forgotten passwords for good.

Their design for subconscious password storage involves the use of a specially crafted computer game. Before running, the game creates a random sequence of 30 letters chosen from S, D, F, J, K, and L, with no repeating characters. In the training game, the user has to hit the corresponding key for each of those letters when a circle reaches the bottom of the screen.

Results of the research so far suggest that it takes about 45 minutes of playing this game to deeply lodge a 30-character password in your subconscious.



To log back into a machine, the user simply plays a quick round of the game, in which some segments are their actual password, but others are randomly created strings of characters. The research team observed that users were consistently able to perform better on the portions of the game containing their password, as those patterns were stored subconsciously. Reliably performing the password sections better than the random sections is what authenticates the user, and allows them to log in.

Because the system is based on performance and speed, rather that rote memorization, it cannot be written down or given away, even to legal authorities or under threat. It is “thousands/millions of times more secure than your average, memorable password,” reports Extreme Tech.

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