Digital solutions for a (digitally) illiterate audience
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Technology Officer
DIGITAL SOLUTIONS FOR ILLITERATE

for Sustainable Development of
Community Educational, Arts, Sports, Cultural and Humanitarian
Shalani Rajainderan
Sri Visahlahkshi Pathninathan Pillay
sorted by organisation

SILAMBAM ASIA

WORLD SILAMBAM ASSOCIATION

WORLD YOGA ASSOCIATION
INDIAN TRADITIONAL ARTS

- **KUTTU VARISAI**: Unarmed arts for adults, women & child
- **SILAMBAM**: Weapon-based arts
- **TRADITIONAL YOGA**: Health, mind & fitness
- **VARMA KALAI**: Medical, disease control, pressure points & nature arts of science/secrets
5R PROGRAM
Research • Revive • Rejuvenate • Retention • Restore

International Non-Government Organisation (INGO)
Indian Traditional Arts for Sustainable Development
of Community Educational, Arts, Sports, Cultural, Heritage and Humanitarian
QUICK VIEW!
Computers transport, calculate, and translate binary numbers because computer hardware circuits only have two electrical states, ON or OFF. These two states can be represented as zero (OFF) or one (ON). All letters of the alphabet, numbers, and symbols are converted to eight character binary numbers as you work with them in software on your computer.

**BINARY CODE**

**UIA**

01110101 = U
01101001 = I
01100001 = A
BINARY CODE IN 2 BIT

00
01
10
11
BINARY CODE IN 3 BIT

000  001  010
011  100  101
110  111
<table>
<thead>
<tr>
<th>World</th>
<th>Literacy Rates (%)</th>
<th>Illiteracy Rates (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>86.1</td>
<td>13.9</td>
</tr>
</tbody>
</table>

World Literacy and Illiteracy Population as Per 2016

https://databank.worldbank.org/reports.aspx?
source=2&type=metadata&series=SE.ADT.LI.TR.MA.ZS#
Digital tools are programs, websites or online resources that can make everyone’s tasks easier to complete and to access at home and in work.
They travel at the speed of the MEDIUM they are travelling through.

Acoustic: travel at the speed of sound but that is rare and almost always digital signals are transmitted as light signals, radio waves or electrical signals.

Wire/Copper: depends on the velocity factor of the cable which is a measurement of how fast the cable is and a typical 12 gauge wire carries a signal at about 95% of the speed of light.

Radio waves: travel at the speed of light, so actually radio waves can be faster than fibre although fiber has more bandwidth. Radio waves can travel forever but as the distance increases the power reduces and it reduces to a level at which you can’t retrieve the information with any useful accuracy.

Light/Fiber-Optics: does the same but it is possible to focus a light beam more tightly and thus you can concentrate the energy and reduce the losses. If fibre optic cable is longer, it may need to connected to repeaters to increase the power lost. As light they are travelling at the speed of light but the speed of light varies with the medium it travels through. For instance the speed of light in a vacuum is 299,792,458 m/s but in fibre optics it can be about 30–35% slower.
## Digital Technology Devices

<table>
<thead>
<tr>
<th>✓ Computer/Notebook (Laptop)</th>
<th>✓ Remote Controls</th>
<th>✓ Microwave Oven</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Mobile phone/Smart phone/Tablet</td>
<td>✓ Keyless entry devices (Thumbprint, Car Key)</td>
<td>✓ Fridge</td>
</tr>
<tr>
<td>✓ Television/DVD Player and Radio</td>
<td>✓ Walkie talkies</td>
<td>✓ Rice Cooker</td>
</tr>
<tr>
<td>✓</td>
<td>✓ Bluetooth earpiece/Headphones/Earphones</td>
<td>✓ Air Conditioner</td>
</tr>
<tr>
<td>✓</td>
<td>✓ GPS satellites</td>
<td>✓ Vehicles</td>
</tr>
<tr>
<td>✓</td>
<td>✓ Cash Registers, car key</td>
<td>- Solar</td>
</tr>
<tr>
<td>✓</td>
<td>✓ Walkie talkies</td>
<td>- Electric</td>
</tr>
<tr>
<td>✓</td>
<td>✓ Bluetooth earpiece/Headphones/Earphones</td>
<td>- Petrol/Diesel</td>
</tr>
<tr>
<td>✓</td>
<td>✓ GPS satellites</td>
<td>✓ Modem, scanner, printer, thumbprint device</td>
</tr>
<tr>
<td>✓</td>
<td>✓ Cash Registers, car key</td>
<td>✓ Cameras and Video Recorder</td>
</tr>
</tbody>
</table>

## Hardware Platform
<table>
<thead>
<tr>
<th>Software Platform</th>
<th>Web Navigation Apps</th>
<th>Social Media / Instant Messaging</th>
<th>Search Engine</th>
<th>Email</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Internet Explorer ✓ Google Chrome ✓ Mozilla Firefox ✓ Safari ✓ Facebook ✓ Twitter ✓ Instagram ✓ WhatsApp ✓ YouTube ✓ Vimeo ✓ Flickr ✓ Tumblr ✓ MSN Messenger ✓ Yahoo Messenger ✓ Skype ✓ Blog (e.g. Blogger) ✓ Instant Messaging Services</td>
<td>✓ Yahoo Search ✓ Google Search ✓ Bing Search ✓ MSN ✓ WebCrawler ✓ Yandex ✓ Ask.com ✓ Baidu</td>
<td>✓ Yahoo Mail ✓ Gmail ✓ Hotmail ✓ Microsoft Outlook ✓ Mail.com</td>
<td>✓ Android Apps (Play Store) ✓ iPhone Apps ✓ Remote Storage / Cloud ✓ Google Docs / Google Sheets &amp; etc ✓ Audio-Video App ✓ Smart Home Automation ✓ GPS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
THAT IS DIGITAL LEARNING AT SCHOOLS, COLLEGE AND UNIVERSITY
SIMPLIFIED TEACHING
FOR
DIGITAL ILLITERATE
BASIC LEARNING
FOR DIGITAL & TECHNOLOGY
ILLITERATE

“FRUIT OF KNOWLEDGE, FOOD OF LIFE”
EARTHBOUND DIGITAL

Digital devices used in Earth, around Earth and digital transmission.
New Horizon probe, other planetary satellites (human made) / digital equipments and digital transmission thru space.
Any message pass through the **MEDIUM** and information sent digitally pass into digital device.
DIGITAL LEARNING USING YOUR OWN FINGERS

The word Digital comes from Latin Word Digit and “Digitus” in Latin Word is - Fingers.
(1) Prithvi (Earth)

A tunnel boring machine, also known as a "mole", is a machine used to excavate tunnels with a circular cross section through a variety of soil and rock strata. They may also be used for micro tunneling. They can bore through anything from hard rock to sand.
Marine animals, plants, fungi and bacteria are contributing directly to curing human disease. The list of chemotherapy agents, antibiotics, anti-viral, anesthetics, adhesives, marine genetic products (MGPs) and others being used or developed to treat cancer, leukemia, cystic fibrosis, heart disease, wounds and infections, among others, includes at least 18,000 products derived from 4,800 species.
USE DIGITAL IN MODERN WORLD TO SAVE OUR PLANET – NOT DESTROY IT!

(1) Prithvi (Earth)

(2) Jala (Water)

(3) Agni (Fire/Light)
USE DIGITAL IN MODERN WORLD TO SAVE OUR PLANET – NOT DESTROY IT!

- (1) **Prithvi** (Earth)
- (2) **Jala** (Water)
- (3) **Agni** (Fire/Light)
- (4) **Vayu** (Air/Wind)
USE DIGITAL IN MODERN WORLD TO SAVE OUR PLANET – NOT DESTROY IT!

(1) Prithvi (Earth)

(2) Jala (Water)

(3) Agni (Fire/Light)

(4) Vayu (Air/Wind)

(5) Akash (Sky/Space)
Moving Forward: Crisis & Solution of Digitally Illiterate
There are hundreds of websites on the internet that deliver information, products, news, and other services for the blind and visually impaired people. The result from Alexa Internet online website rankings present the top 25 most popular websites for the blind and visually impaired and no single site had ranking of less than 100,000. (the lower the ranking, the better)

- [http://codefactory.es](http://codefactory.es) Rank: 962,182
- [http://actionforblindpeople.org.uk](http://actionforblindpeople.org.uk) Rank: 950,794
- [http://screenreader.net](http://screenreader.net) Rank: 946,040
- [http://aisquared.com](http://aisquared.com) Rank: 708,524
- [http://www.brl.org](http://www.brl.org) Rank: 675,270
- [http://www.braillebookstore.com](http://www.braillebookstore.com) Rank: 659,932

**Do you have websites that facilitate Blind & Visually Impaired People?**
Issue within Governmental, Intergovernmental, Association or Organisation may caused illiterate?

1) Attitude, arrogance and emotions
2) Egoism during handling Society/Public
3) System/Security system too tight
4) Do not know how to prepare documentation
5) Do not know government rules and regulation
6) Following too many internal protocol until ignore public situation
7) MUST DO : People making concept, not Money making concept
8) And many more…

This caused illiterate audience not reached because THEY FEAR something may when wrong if they (public/newly established association/society) make any blunt mistake!!
How to reach rural areas population?

Telecommunication or signal from the tower is not reachable, so digital device is dysfunctional or intermittent disruptions at rural area. Bandwidth or signal transmission should be reachable without causing harm, pollution or radiation.

To reach digital environment to rural areas without tarnish or break rural community believes or culture (especially such as tribes).
How to reach poverty or financially unstable population?

Government should provide subsidy rate for poor communities or low income to purchase digital equipment which is necessary for communication and for learning such as computer or laptop and modem.
How to reach schools or educational institutions?

Teachers should be trained to use digital devices to conduct program.

Interactive website containing games and quizzes related to website objective or information for children.
How to reach digitally illiterate without damaging heritage and culture of certain community?

Spiritual harmony tarnished and believes of certain religion getting worsen because of digitally evolved environment. By scientific approach, some government, semi-government, civil society, educators should take initiative to explain about this digital communication and technology by finding positive ways to encourage them – digital will protect their heritage and culture.
How to reach and tackle language barrier?

Creating the portal which have language options (in user’s native language) and create auto-detect language in the website if possible.
Poor Education System is barrier to children growth

Situation:
Students/ children memorize the syllabus that provided by the school. At the end of the year, they having exam and teachers will pick up the top ranking students. They only focus on the power of the memorization instead of the creativity and innovative ideas from the students. At last, the students who at last ranking will be presented as doesn’t have knowledge in education. Syllabus at schools are redundant and only related to the political of the country and doesn’t have any syllabus that related to the economic development. Until NOW, school is segregating between arts and science stream - CHILDRENS “AMBITION KILLER.”

Solution:
The school/ institutions must specialized the talent of each individual / children at the early of age.
Generation Disease

Forcing children to follow their ancestors / parents (lineage) career pathway.

Some parents desired not fulfilled in their childhood, they force their children to fulfill that missing.

If ancestors cannot afford / incapable to achieve in the past, their parents will tell their children to think same ways.
Rich People gets whatever they need in their life like high education, expensive gadgets, tasty foods and so on. But, for the people in poverty suffering to get food for one time daily to run their life. Moreover, they are not capable of buying new technology tools, which also lead them unable to provide education to their next generation. So, this kind of situation make them not only poorer in life, but make them poorer in knowledge too.

Rich Become Smarter, Poor Become Illiterate
Computer Education is a MUST

**Situation:**
For primary/secondary students, schools never provide/upgrade latest computer/pc to use during their Computer Class/ICT class. In some school, they never teach/educate basic understanding on computer.

**Solution:**
Must provide latest technology tools to educate students.
Situation:
Parents STOPPED daughters education once she finish her primary school.

Perception of these parents:
● Uneducated daughters can get married easily compared to educated child/ daughter;
● Most educated women usually have marriage life postponed because her prolonged education and it lead to delays of her marriage life;
● Late marriage may cause ageing diseases for women and may harmful for childbirth (abnormalities in the fetus/syndrome);
● Higher risk of complications if pregnancy happen at late marriage;
● Divorce may take place easily because women learnt ways to evade marriage by using law "rather than" thinking ways to secure/ create happy relationship.

This situation made some parent stop women education at certain age.
Merging all the card system

SILAMBAM members card which having discounted points for training session, including access card functional for certain type of member access privileges from partners/ affiliates (to get discounts from hotels, airlines, deliveries / taxis / private transportation services such as Grab)

Very soon, we will connecting our membership card with debit card function to allow our silambam students/practitioners getting extra mileage points from their purchases and end of the year to enable them recover again all their expenses by taking free mileage flight to desired destination. (ANNUAL TRIP for student – smart digital planning)
Digitalize E-forms (Application Forms)

Replace informal method (letter/paper) to digital method (online application). SILAMBAM online form’s every column having its own explanatory on how to input.
Payment Portal

Introducing secured payment method by explaining the safety and fast or efficient transfers of money or payment via this portal.

Example: payment via PayPal and Credit card.
Situation:
Facebook, YouTube are scary place where people get embarrassed themselves and their families by exposes personal information, photos, videos and etc. intentionally or unintentionally through hacking or peek at people’s information.

Solution:
Every organization creating or posting domain by using secured server (https SSL server).

Creating strong password or passphrases
Without read carefully, concern, privacy and policy, terms and conditions, copyrights or trademark infringement. Many users either fall trapped, misleading or misused or abused by scammer or non-responsible organization.
Spammers for Marketing

Persuasive marketing (intentionally), which may force digitally illiterate users to register, to buy or purchase certain types of products or services.
Inclusion of computer viruses, worms, and malware intentionally or unintentionally to the users, which may cause digitally illiterate users had damages.

Some website may request user to provide some information, processing and distribute to several other servers to distribute marketing information. (malware)
Unnecessary Pop Up when using Internet Access

**Situation:**
Display unnecessary pop up when student/children access to the internet. There got chances for students who click the pop ups and this thing lead their life into wrong direction. Example pop ups: Violence or sexual contents.

**Solution:**
Must provide pop-up blocker awareness and anti-spamming on how to install in their web hosting.
**Improper education related to Economics and Trading**

**Situation:**
Due to improper education related to economics / trading, the dream of each individual become impossible for them to achieve. Example: People who interest to invest or run their own company impossible to achieve their dream due to this improper education.

**Solution:**
Creating Open Source Platform included with Artificial Intelligence (AI) in education which make students life easier.
Tourist Only – Teaching not allowed

Provide education services / charity work is illegal and wrong if you travel as visitor in many countries. This is Government related issues to be resolve.
THANK YOU

Sekian Terima Kasih

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