

**‘FULL CAPSULE 221’:
PROFILING AN EDUCATED PERSON
OF THE 2ND HALF OF THE 21ST CENTURY**

[BY]

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'FULL CAPSULE 221':
PROFILING A WELL EDUCATED PERSON
OF THE 2ND HALF OF THE 21ST CENTURY

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INTRODUCTION

Since the dawn of time, education has been structured by each society to help them address challenges confronting their environment. Education has sought to mould each individual in the society and to equip him to effectively and efficiently play his role as an essential part in the general scheme of things, while earning his living at the same time.

In relatively recent history, progressive civilizations have successfully used education to attain and sustain their dominance over other civilizations and excellence in their required areas of expertise. Historic evidence attests to this – for town planning
Spartan for military & politics....

Other roles of education have been about ‘helping the learner to be able to rise to the full height as a human being; ‘awakening the learner within’; or to ‘remove learning phobias’.

Predecessors of the Click Age have demonstrated that humans have come this far because skills are adopted, firstly for immediate survival, and then for advancement into a better generation: Caveman >Stone Age >Nomadic Hunters >Bronze Age >Iron Age >Agricultural Society >Industrial society >Information Society/Click Age;

The well educated person of the second half of the 21st Century should in the same sense be fully equipped with competences that will enable him not only to exercise a substantial dexterity over the culture of the period but to be able to significantly contribute to shaping the culture of the next generation.

Technological advances and the knowledge economy: The world of atoms; the world of bits; convergences leading to new frontiers in nano-technology, biology, space, cognition, consciousness etc.

CHARACTERISTICS OF THE SECOND HALF OF THE 21ST CENTURY:

- Rapidly changing technology
- Click-Age culture
- 'Unemployment'? What 'Unemployment'?

RAPIDLY CHANGING TECHNOLOGY

It is no longer a strange that gadgetry of today get obsolete by the minute. That by the time we pick up an electronic gadget off the shelf and convey it to the counter it's already obsolete. Far worse, by before its manufacturers complete editing its commercial for the networks, themed *'the coolest find of the year'*, its actually already *'grand pa's hype'*.

The dominant concern actually lies with the fact that rapidly changing technology is no longer a preserve of the 'coolest dudes in town'. It has become an integral part of domestic, social and industrial dynamics. From conference calls to mobile phone banking services, whoever turns a blind eye to the new language does so at their own mockable peril.

An individual of this generation will as a matter of survival have to be above average tech-savvy.

CLICK-AGE CULTURE

This is the recently rapidly integrated and optimum reliance on Information Technology to carry out human endeavors, including, but not exclusive to: shopping, filing, banking, scheduling, information dissemination, communicating and social networking. Its element of 'culture' is derivative from the reasoning that its society has relied on it for so long that it's become the norm: their way of life.

The advent of Information Technology, the World Wide Web, Social Networking and related trends has long strayed from periods when it was a just facility for communication; it has now become a trend, a culture of its own. This trend has grown its faithful, committed, dominant and thriving community, to whom there can be no other way of doing things. It has become their way of life, both collectively and independently.

Barely ten years ago, a parent's guaranteed way of protecting his/her child from bad external influence is by entreating him to 'stay indoors' and 'read'. Now, the child, of his own volition will not have to step out to join bad company; they could be in right with him his room whiles he's 'reading' on facebook, twitter, flickr, Skype or other social networking sites.

Information Technology in this case, is not 'facilitating' communication with already existent friends of his. It's a dynamic trend he cant resist not being be a part of. A culture he's be born into; the norms of his environment. It's a lifestyle-influenced walk through a gateway into a live and lively community that's ready to listen and contribute to anything, around the clock; ready to offer advice on any theme; and ready to comfort or console anyone over any worry at anytime. This community is reachable by a just a mouse-click.

In terms of group dynamics, most members of this community are usually more in touch with each other than they are with people physically around them. A member who's been absent for a while does not miss out on developments, because he gets up-to-the-minute updates of what all others are doing and have been up to. He receives confidential correspondence in his inbox; reads open postings on his wall, and can engage in instant chats with anyone online at any given moment. Fellows even share 'what's on their mind':- a privilege a girl might not always accord her own mother. [All at next to no cost to the user]

'UNEMPLOYMENT'? WHAT 'UNEMPLOYMENT'?

The 'phenomenon' of unemployment has bedeviled every corner of the world. It has sustained its grip on economies to an extent that it is becoming imperative perhaps to re-define what unemployment really is. Perhaps in the nearest future, being 'employed' should not be viewed in the current traditional sense of being actively engaged in a laborious activity which earns you a living; but by belonging to a certain community that affords you the financial resources to go out there and spend it in a way that impacts the economy, via defined rational or irrational means.

After all, it isn't the economy that turns people's lifestyles around. It is people's lifestyles that turn the economy around.

EDUCATIONAL OBJECTIVES FOR THE 2ND HALF OF THE 21ST CENTURY

In view of the trend speeds around the world, education must be designed to put the individual and workforce equipped to take full advantage of the revolutionary technological blessings of the period and make them integral contributors to the changes of the period. The educated person of this period put be fully charged with all necessary capacities required to practically address the challenges confronting a vast majority of mankind, notably, poverty and illiteracy; problems we only seem to be managing rather than actually obliterating.

Educational objectives for the second half of the twenty-first century per country should aim at the totality of:

1. Attaining single digit **poverty & illiteracy**
2. Dare to conceptualise **new practical solutions** to meet present challenges & objectives @ every sector
3. Take full advantage of **information technology** at every sector
4. Incite **creativity & innovativeness** from citizenry for **New Cultures**:- initiate more convenient and efficient ways of doing things. In this direction educational objectives must boldly include **schemes for** identifying and/or creating geniuses for the nation fully support them.
5. Attain **skilled employment** for population [by identifying/creating new markets and delivering to them]

FULL CAPSULE: [THE COMPONENTS OF THE WELL EDUCATED-221]:-SKA's

KNOWLEDGE

- Must possess at least a University/Tertiary Level Education in any field.
- Fluency In English; Additional Language
- Basics of the Humanities: Introduction to Psychology, Philosophy, Sociology
- A Little Above Simple Maths
- Be Science Literate; not necessarily in terms of calculus, but knowledge of: Space Geography; Inventions And Trends; and a scientific appreciation of How Things Work;
- Seek Scientific/Measurable Interpretation/relevance to everything around him.
- Above Average ICT Skills; Ability to write simple Software
- Have More Than A Little Bit Of Both Worlds [Science & Humanities] For A Broadened World View No Matter What Career Paths They Choose
- Must have an interest in News & Current Affairs and how his society is run by decision makers.
- News & Current Affairs
- The Law/legal procedures & terminologies

SKILLS

HUMAN DYNAMICS:

- Quest For Creativity, Innovation
- Ability to responsibly and analytically Measure & Pre-determine how and when tasks are accomplished
- Leadership/decision making competences
- Strive to attain GENIUS capacities;
- Problem Solving; Learning skills strategies; Creative innovative thinking; Decision making
- Must have a high enthusiasm for learning and self development

VERSATILITY:

- Ability to tailor-make anything to one's convenience[leading to worldwide consumables] Eg Mike Zukerman-Facebook; rather than readily swallowing anything that comes along, without question;
- Ability To Create Easy/More Convenient Ways Of Doing Things/Living in a world where every effort is being made to meet the consumer at his closet preference point:
Coke/Coke Lite; Pepsi/Pepsi Lite; Marlboro/M. Lite With Mint; Budweiser-Bud Lite;
Coffee/Decaf; Tea/Ice tea; Milk/Cold Milk; Beer/Shandy, Diff Flavours;

ATTITUDE/VALUES

- Ability to think independently of established norms;
- Must be culturally sound: Devoid of Cultural Stereotypes/ Shells
- Accommodative of people of all backgrounds irrespective of race, religion, status, nation [ie., he mustn't be intimidated into thinking people of a certain nationality are better than him/others.
- Sensitivity To Question Why Things Aren't More Convenient, More Humane; More Sensible; Practical Desire to 'Change The World' in any little way [Examples Of Things To Change]
- Ability to responsibly and accurately Pre-determine how and when tasks are accomplished
- Entrepreneurship Skills; Time management
- Money Management;
- Affective Skills and traits:
Dependability/ Responsibility: Positive attitude towards work; Conscientiousness, Punctuality, efficiency; Interpersonal communication skills, co-operation, working as a team member; Self confidence, positive self image; Adaptability, flexibility; Enthusiasm, self motivation; Self-discipline self management; Honesty, integrity; Ability to work without supervision; Grooming, appropriate dress
- Competitive Sports [enhances perseverance & team work]
- Life Style Education: Attributes Like Etiquette, Grooming, Political Correctness, New Age Tech, Courtesies, Human Rights, Character, Etc.
- Working in Teams; Cross-cultural collaboration; Building Confidence and self-esteem

APPLICABILITY: BUSY BRAINS

NATURE VS NURTURE

There have been varying schools of thought that revolve around the levels of influences of either **Nature** or **Nurture** in the formation and development of the human persona:

Nurture -having to do with the influence of the society and environment; and Nature having to do with inborn competences.

Rising schools of thought hold claim to a combination of both, looped into the development of the brain. Scientists have found that **ability to use both left and right hemispheres of the brain** [the logical and the emotional] makes the individual mentally dexterous. And this, some claim, can be nurtured/adapted using the 'use it or loose it' theory.

Male and female brains

Whether you are a boy or a girl also determines how your brain looks and works. We know from animal research that substances called sex hormones, produced by the sex glands, are needed to develop the differences between males and females. Sex hormones are necessary both for forming the genitals and for the behavioural and brain differences between the sexes. The hypothalamus, which is a tiny structure at the base of the brain, regulates many basic functions, such as eating, sleeping, temperature control, and reproduction. One part of the hypothalamus responsible for sexual behaviour is larger in male brains than in female brains, in human and non-human animals. In rats the enlargement is known to depend on male sex hormones, called androgens.

Sex hormones also affect other parts of the brain. For example, the outer layer of the cerebrum, called the cortex, is thicker on the right hemisphere than on the left in male rats, but not in female rats. Another recent discovery is that male and female brains in some ways work differently. When set the same task, females may use both hemispheres, while male brain activity is restricted to one side. For example, if the task is to define words, men appear to use only their left hemisphere, while women use both. For many other problem-solving activities however, men's and women's brains work in the same way.

The left and right cerebral hemispheres are connected by fibres running crosswise between them called commissures. The largest and most important commissure is called the corpus callosum; another important connection is the anterior commissure. One way the commissures are useful is in exchanging information between the two hemispheres.

These connections between the hemispheres may also be somewhat different in men and women. The area of the anterior commissure seems to be larger in women, and some researchers have found that the back part of the corpus callosum is larger in women. If the larger area of the commissures results in better communication between hemispheres, this could make some difference to the way men's and women's brains work.

Finally, there is probably also a difference between men and women as to which part of the left hemisphere is responsible for speech and hand movements. There are two major areas devoted to

speech, one in the frontal lobe, and the other at the back, where the temporal and parietal lobes meet. In women, the frontal region is more important than the area at the back, so problems with speaking are more likely to happen if the front part of the left hemisphere is damaged. In men, the areas contribute more equally, but if anything the back part, especially the parietal region, is more important.

Evolutionary change

Some of the differences between the ways that men's and women's brains work must have **evolved over time**. We know that the average man and woman have slightly different intellectual strengths. Some of these differences appear to be the result of a **division of labour between men and women going back to our hunter-gatherer past**. For example, men are better at spatial-navigational skills such as map reading and judging distances and at targeting skills (dart throwing for instance). These skills probably **developed through hunting**. Women have a better memory for words and objects, and are better at fine motor skills. These abilities probably **developed through food gathering near the home and through making clothes and preparing food**.

We know from animal research that sex hormones help determine such patterns, because if the brains of young female rats are exposed to androgens right after birth, their spatial abilities as adults are different from normal females', and more like males'. Similarly, in humans, **girls exposed to excessive androgens early in life have better spatial skills than other females**. Exactly how sex hormones cause changes in the brain to make one person intellectually different from another is not yet understood in detail, but it is a fascinating subject which is the focus of much current research.

The Brain: Use It or Lose It

The 1990s have been declared the Decade of the Brain and the Decade of Education. The human brain receives all education and is the source of all behavior. It is the most complex mass of protoplasm on Earth, and perhaps in our galaxy. A simple essay can only begin to describe its magnificence on the one hand and its malice on the other. By offering a few facts about the development of the brain, I hope to emphasize its role in providing the substrate for education before and after birth.

Various parts of the brain develop at various rates. The part constituting the outer layers of the cerebral hemispheres, called the cerebral cortex (cortex means "bark"), deals with higher cognitive processing. The cerebral cortex is a likely target for a study of the effects of education on the brain. The cortex ranges from 1.5 to 4.5 millimeters thick, with nerve cells accounting for most of the thickness. How do these cells respond to their external environment or, in more specific terms, to education?

The most recently evolved part of the cerebral cortex, the neocortex, has its full complement of nerve cells at a person's birth. Even if an individual lives more than one hundred years, no new nerve cells are formed in this part of the brain. Yet the most rapid growth of the neocortex occurs during the first ten years or so of life.

What, then, is growing? **The receptive branches of the nerve cells, called dendrites, are responsible for most of this postnatal neocortical growth, and the neural network they form becomes the "hardware" of intelligence. Dendrites are extensions of the nerve cell membrane that receive the input from other nerve cells. These branches are very responsive to such input, increasing in number with use and decreasing with disuse. The phrase "use it or lose it" definitely applies to this process.**

Though most of the research providing information on the plasticity of the brain comes from animal studies, recent experiments from the Brain Research Institute at UCLA have shown similar results in human brains. In Wernicke's area, which deals with word understanding, the nerve cells have more dendrites in college-educated people than in people with only a high school education.

Increases in cortical growth as a consequence of stimulating environmental input have been demonstrated at every age, including very old age. The greatest changes, however-as much as 16 percent increases-have been noted during the period when the cerebral cortex is growing most rapidly -the first ten years. **By providing children with challenging experiences through enriched education and environments, those dendrites cannot help but be off to a good start!**

Since no two human brains are exactly alike, no one enriched environment will completely satisfy all learners for an extended period. The range of enriched environments for human beings is endless. **For some, interacting physically with objects is gratifying; for others, finding and processing information is rewarding; and for still others, working with creative ideas is most enjoyable. But no matter what form enrichment takes, it is the challenge to the nerve cells that is important. Data indicate that passive observation is not enough; one must interact with the environment. One way to be certain of continued enrichment is to stimulate and maintain curiosity throughout a lifetime.**

CONCLUSION

Today, the more global the world gets, the more individual the individual gets.

We're discovering new horizons in the universe every year as the Hubble telescope reveals new frontiers of the universe] whiles at the same time, we're discovering nano technology , the smallest ever known particle.

No matter however we advance, certain human irrationalities will still exist. We mustn't stress to 'perfect' every body at once: religious beliefs, superstitions, neatness/orderliness, financial prudence; cheating/lying—each society/culture will find its own way of 'straightening' people up.

Civilization is taking different forms now. It no longer remains solely about technology/ facilities/ education/exposure; but also importantly about tolerance & giving others the room to be themselves Same as necessity is the mum of creation, anticipated rewards spur people on to learn about anything despite the challenges/the end reward excites the learning process, phobias notwithstanding. The practical applicability of the subject makes it easier to consume.

The brain is the most versatile, yet the 'laziest' organ;

The brain has overwhelmingly proven over time that it can absorb just about anything. It can easily adapt to any environment it is thrown into and thrive; yet the 'use it or loose it' theories have argued that when a particular skill is abandon over time, the brain throws it into the dustbins of oblivion. Therefore it is fair to argue that all the Skills, Knowledge and Attributes advocated by this study for the Well Educated Person of the 21st century if deligently pursued can be easily attainable.

This study vehemently condemns the lame argument for using implements/objects of the surroundings to teach children especially of villages; in view of the present rapidly changing global world;

No longer should we think locally & act globally, but rather think globally and act globally; as the global village has come to have a greater impact on the locality than vice-versa.

In a world that's rapidly been swarmed by technology by the second, and ever expanding by social networking, failure to expose children of any community perched in a corner of the world to the realities of today will constitute a one-way ticket to retrogressivity.

So for that village kid, educators must take advantage of accessible technology like television and computers as 'windows to the world' to expose children to the broader world; take them on monthly excursions to the nearest capital; arrange exchange programmes and games between them and children of affluent private schools. Do everything than relegate them to 'their corner'.

According to Marian Diamond:-

- ▶ “By providing children with challenging experiences through enriched education and environments .. dendrites cannot help but be off to a good start!”
- ▶ ..But no matter what form enrichment takes, it is the challenge to the nerve cells that is important.

This confirms that whatever environment we expose the child too is what his brain will adapt to and thus the individual settles for. The attempts in life to catch up will prove a struggle.

However if we do everything possible to challenge the child into developed settings, he'll be 'off to a good start'.

As Edward de bono stipulates in 'New thinking for the new millennium', "*There are hundreds of companies and thousands of people writing software for computers...What about the human brain? ...We have got so used to our existing mental software that we see no fault or limitation in it...*"

This clearly suggests a way of writing 'software' [OS] for the human brain. In other words, purposely feeding a set of programmes into the individual in order for him to think and act in a specified way.

If this is well executed through carefully designed curricular, '**Fullcapsule 221**' will be achievable for development.

HUMAN DEVELOPMENT VRS HUMAN RESOURCE DEVELOPMENT

Better still, beyond the known components of human resource development, employers must concern themselves with the natural human quest for the higher levels of Maslow's theory, and seek to resource the individual to reach for them. Otherwise the provisions of the components of human resource development [including Education] as a means of 'maximizing the utilization of human resource' to achieve organizational goals and for economic development, may merely be likened to *giving extra loving care to a race horse, in order for it to 'perform', and not that we care that much!*

REFERENCES

Prof. MM Pant

'The Brain: use it or loose it' by [Marian Cleeves Diamond](#) [*This article first appeared in **Mindshift Connection** (vol. 1, no.1), a [Zephyr Press](#) publication edited by [Dee Dickinson](#)*]