

2. **Defensive Tactics** - I hired a subcontractor to make the Front end user Interface that first comes up while I concentrated on the 3D Graphics and mathematical modeling that appear after the Launch button is pressed.
3. **Description of Invention** - As you will see in the multimedia presentation, I have a 5 minute time limit on the computer simulation of my sparkless furnace ignition system. The simulation has a random nag screen that prevents usage at short random time intervals while displaying registration reminders, and also my company name in the title bar prevents credit theft. Since it is not in the final stage I left the name TechTornado.Com unencrypted in the code so I can demonstrate how opening up the program thermosim.exe in Wordpad.
If you want to launch a command prompt and execute the thermosim program from the console, you may choose these are some of the command line arguments to run the demo of my sparkless furnace ignition system.
-f filename will allow the program to load other coordinate files besides the default "coords.fsm"
The rest are well documented:
-M Num set factor of density's affect on temperature to Num (default 0.23)
-E Num set factor of velocity's affect on density to Num (default 0.13)
-F Num set multiplier affecting temperature diffusion to Num (default 0.4)
-A Num set multiplier affecting density diffusion to Num (default 0.35)
-L Num set factor of velocity's affect on density to Num (default 0.14)
-P Num set spread factor of particles' velocities to Num (default 0.39)
-R Num set friction factor to Num (default 0.09)
-O Num set initial temperature of incoming gas to Num (default 2456.7)
-N Num set initial density of incoming gas to Num (default 23.456)
-Y Num set initial velocity of incoming particles to Num (default 3.0)
-C Num set monte carlo accuracy level to Num - an integer Max 8 (default 3)
-G Num set number of steps to pre-run simulation for - an integer (default 5)
-n Num set size of simulation space to Num - an integer- space can only be cubin with height, length, and width of Num cells
-s Num set seed of random number generator to Num
4. **Future Applications**- My design and invention of the sparkless furnace ignitor can be modified to simulate other combustion chambers besides the coal furnace power plants. Secondly my design can be applied to a personal model rocket.
5. **Marketing Strategy** - in the absence of a written contract I made this demo that illustrate all of the features without actually being useable or easily modifiable to unlock the useability.

GERALD M. MUSA

A VIEW OF MARSHALL MCLUHAN'S PHILOSOPHY VIS-A-VIS

THE RICHES AND RISKS OF THE CELLULAR TELEPHONE AND THE FAMILY

"A vital point I must stress again is that societies have always been shaped more by the nature of the media with which men communicate than by the content of the communication." **McLuhan**

INTRODUCTION

The theme of the message of the 38th world communications day sent by Pope John Paul II for this year 2004 is: "The Media and the Family: A Risk and Richness." The opening paragraph of the message reads: "The extraordinary growth of the communication media and their increased availability has brought exceptional opportunities for enriching the lives not only of individuals, but also of families. At the same time, families today face new challenges arising from (these)..."

This essay is not on the Mass Media but it is aimed to examine one of the very vital and powerful medium of communication – the cell phone. I intend to discuss on the impact of this medium on the primary unit of the society- The Family. I intend to talk about this new technology mainly in the light of the philosophy of the Marshall McLuhan.

AN OVERVIEW OF MARSHALL MCLUHAN'S PHILOSOPHY

Marshall McLuhan was influenced by the Catholic Philosopher Pierre Teilhard de Chardin. Chardin believed that electricity is an extension of the central nervous system. Building on the philosophy of Chardin, McLuhan explains technology as an extension of the human body. He gave the examples of the shovels we use for digging hole as an extension of the hands, the microscope or telescope as extensions of the eye, or the automobile as the extension of the feet.

McLuhan argues that technologies are not mere inventions but they are instruments through which people themselves are being re-invented. He summarises the content of his works in the following words: "My work is designed for the pragmatic purpose of trying to understand our technological environment and its psychic and social consequences." In 1962 McLuhan published a book titled: 'The Gutenberg Galaxy' in which he spoke about the great revolutions that have taken place in the world as a result of the invention of the printing press by Johannes Gutenberg. In a different book titled: 'The medium is the message, McLuhan explained profoundly why we must not only study the content of a message but also the impact of the medium through which the message is passed.

Another notable philosopher with a similar idea is Walter J. Ong who was a student of McLuhan. One of "Ong's most contribution was to show how various forms of communication – from storytelling to cyberspace—shape our thoughts, relationships and cultures."¹ The Print technology was really a giant stride in the print technology brought about psychic and social transformation of the society. It is one of the central issues that Ong discussed in his famous book: "Orality and Literacy: The Technologising of the Word." McLuhan had described every technology as a "revolutionising agent." As an extension of the philosophy of McLuhan, I want to look at the revolutionising effects of the cell phone as I focus on its riches and risks in the life of the family.

THE HISTORY OF THE CELL TELEPHONE

At the University of Copenhagen, in 1820 Danish physicist Christian Oersted discovered electromagnetism. This discovery of

¹ <http://www.sl.u.edu/readstory/newslink/2974>

the principle of electromagnetism and its application ushered in a new era in the history of communications. Furthermore in the 1870s Elisha Gray and Alexander Graham Bell independently designed devices that could transmit speech electrically (the telephone).

The development of communication through the telephone in the modern age continued steadily. The invention of the mobile phones came in gradually as they were installed in cars in the 1940s. There was however a giant stride on April 3, 1973, when Michael Cooper made the first public telephone call placed on a portable cellular phone. He was at that time the general manager of Motorola's Communications Systems Division.

Speaking during the 30th anniversary of this achievement on April 3, 2003, Michael Cooper explains the motivation for the invention of the cell at that point in time:

"People want to talk to other people - not a house, or an office, or a car. Given a choice, people will demand the freedom to communicate wherever they are, unfettered by the infamous copper wire. It is that freedom we sought to vividly demonstrate in 1973," said Martin Cooper.

Cooper added, *"As I walked down the street while talking on the phone, sophisticated New Yorkers gaped at the sight of someone actually moving around while making a phone call. Remember that in 1973, there weren't cordless telephones, let alone cellular phones. I made numerous calls, including one where I crossed the street while talking to a New York radio reporter - probably one of the more dangerous things I have ever done in my life."*

Walter J. Ong has this to say about new technologies: "New technologies" he said, "did not replace their predecessors, but interacted with them, reinforcing some aspects and reshaping others." This comment can be linked to the relationship between the fixed phone and the cell phone. The cell phone is a new technology making waves in the sphere of communication today.

THE RICHES OF THE CELL PHONE TECHNOLOGY

The cell phone technology came in as one of the greatest developments in the history of modern communication technology. At first, it was almost exclusively reserved to the high class of the society and top shots of the security agents. Like the Gutenberg printing which made reading and ownership of books open to the public; similarly, the cell phones became generally more available to the public than it has ever been.

The cell phone is one of the prominent medium that has made the world more of a global parlour than a global village. It has offered family members the possibility to communicate anytime and anywhere. Unlike the fixed phone, the portability of the cell phone makes it even more attractive. This explains why many countries today have more cell phone subscribers than that of fixed phones. The mobile phone, as the name implies enables one to make calls within and outside the home unhindered by cable wires. Besides, one could say with a certain amount of certainty that there is less bureaucracy in owning a cell phone than getting a fixed house phone. The constant improvement of this technology to access the internet, to serve as video phone extends its many possibilities. It creates a wireless connection among people

One of the very big advantages of the cell phone is the fact that it could serve as a life saver in emergency. The usage of the cell phones has brought about the quick intervention of the ambulance, the police and the fire brigade to save lives and property. Cell phones have actually served to improve the communication of parents and children especially in the moments of necessity and anxiety. In its research, 'The Guardian Newspapers' (7th August, 2003) discovered that in Italy, the rate of subscriptions (to cell phones) is forecast to top 90% of the population this year - one of the highest in the world. "This is a way for parents to extend the umbilical cord linking them to their children," said Anna Oliverio Ferraris, a lecturer in psychology at Sapienza University in Rome."

THE RISKS OF THE CELL PHONE TECHNOLOGY:

If the Gutenberg Press has brought about the fragmentation of the society, as McLuhan explains, I think that the invention of Cooper introduced compartmentalisation of the family. In a new system, where each-one-owns-one, the idea of the common telephone in the house is relegated to the background. This has some own implications:

HIGH COST OF MAINTENANCE: The cost of maintaining each phone for each member of the family becomes even more. This is more so in the case when the children are totally dependent on the parents for the purchase and maintenance. The cost of maintaining cell phones is obviously far more than that of the fixed phone. Communication through this means has actually proved to be an expensive venture. This creates another class of difference between the 'haves' and the 'have nots,' between rich parents and the poor parents. This promotes the much talked about 'digital divide.' It creates an additional situation where 'digital' children are separated from 'manual' children.

INDIVIDUALISM: One of the consequences of the Gutenberg printing press is the enthronement of the culture of individualism. People could stay hours in the privacy of their rooms reading books and novels. This individualism is even expressed the more with the advent of the cell phones, which makes it convenient for any stranger to make calls to children without reference to parents. In other words, it makes it sometimes hardly possible for parents to know the friends and acquaintances of their children.

ETIQUETTE: As each technology comes into a family or an entire society, a code of ethics and etiquette help to shape and control its usage. Parents and Schools have the responsibility of guiding children and students from the indiscriminate use of the cell phones at home and in the classroom. A tool that is wrongly used has the potential of causing harm to the user. Salient questions that parents should ask are whether each child really needs one? Or rather what is the minimum age for the ownership of the cell phone? There should be an adequate education for the family members about how best to use the phone and what the phone is all about, including the radioactive waves hazard that is said to be dangerous to the health. Basic etiquette on the use of the cell phone is important for the family. For example when and where a phone should be used and where it ought not to be used. The management of credits in the phone is another discipline to be imbibed.

PATHOLOGICAL ATTACHMENT: The cellular phone has become such a useful instrument for communication between family and friends that it has become increasingly difficult to detach from it even for a short time. A research carried out by the BBC world news on the 12th May, 2003 (less than a year ago) categorised 3 different types of attitudes people develop with the cell phones:

"Cyborgs" are those that cannot imagine life without a mobile. Phones owned by these people are likely to be the latest model or heavily personalised with ring tones and novel fascias.

People in this group rely on their phone to help them order and manage life and see their handset as part of their personality.

The second group are dubbed "**Prosthetics**". They can remember life before mobiles and see the phone as an extension of self rather than a part of it.

For this group the phone is a functional device used to administer their life rather than something that contributes to emotional attachments.

The third group are "**Connected but unattached**" and regard their mobile as necessary and mainly make voice calls with it."

Another research carried by the 'Guardian Newspaper', of 7th August, 2003 indicates this kind of attachment saying "Italian parents are rearing a generation of mobile phone slaves, according to the conclusions of a study published yesterday. A survey of children aged between nine and 10 found 56% owned mobile phones. Of these: 68% never switched the phones off; 80% kept them on in church; 86% kept them on during lessons.

These side effects that accompany each technology McLuhan calls Amputations. He explained Amputations to be the opposite of Extensions. He mentioned the loss of archery skill as an amputation that occurred after the development of gunpowder. About the telephone, he said: "...it extends the voice, but it amputates the art of penmanship gained through regular correspondence." I would like to describe these side-effects as the opportunity cost of the mobile phone technology.

CONCLUSION

The invention of the mobile has made communication much easier among families. However, like every new technology, the psychic social impact of the cell phone must be studied, so that its advantages are maximised by each family and its risks are minimised as much as it is possible. Since, technology is the product of the human person, it should be used as a tool to be controlled and not as a tool that controls its own makers. Fixed telephones cellular phone has broken down the barriers of not communicating outside the home or office premises. The cellular telephones became an extension of the fixed telephones. I would want to refer to these new hi-tech telephones as 'telephone without borders.' It is certainly necessary for the day-to-day family communication as it brings distant family members closer and serves as vital instruments for emergency contacts. However, we see that it has re-inforced a new form of a class difference and re-emphasised individualism and a new wave of pathological attachment to technology.

Silvia Francesca Mary Addini-Stein

LECTURES WITHOUT BORDERS: VIDEOSTREAMING AS A MEDIUM DISPLACING INSTITUTIONAL DEPENDENCY

The popular use of new videostreaming technologies to download lectures for free individual use as well as for multimedia projectors at conferences and particularly in classrooms, which I, and colleague Gerald Musa (2005), nickname "lectures without borders", has made communication much easier between lecturers and their audiences. "Lectures without borders", technologically, has overcome the barriers of not communicating outside the physical boundaries of the classroom or workplace. "Lectures without borders" brings distant human family members closer, in learning situations otherwise restricted by travel, income, politics, and visa regimes. By displacing the physical connections which create dependency upon educational institutions and their geographically, as well as politically, locked points of reference, our human family becomes our natural point of reference bridging real world activity with classroom style learning. In this article I layout for you the major challenges and solutions I encountered in being privileged to work with TNU's Dr. Danilova's students while away and the solutions I found to make my lectures easily accessible, "without borders", and I list some future pedagogical directions for videostreaming technology.

Абдулаев А.А.

ОСОБЕННОСТИ ФОРМИРОВАНИЯ СТРАТЕГИИ ВНЕШНЕЭКОНОМИЧЕСКОЙ ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЯ

Рост производства, недостаточная ёмкость внутреннего рынка стимулируют компании к принятию решения о выходе на внешние рынки. Данный процесс требует проведения более глубокого анализа перспектив и возможностей функционирования на мировом рынке, а также наличия необходимых для этого ресурсов.

Однако спонтанность и порой необоснованность действий приводит к росту риска возникновения непредвиденных ситуаций, негативно отражающихся на реализации внешнеэкономической стратегии предприятия. При этом нарушаются основные принципы планирования. Несбалансированность, отсутствие преемственности в разработке стратегических и тактических планов, экономическая необоснованность плановых показателей не только не позволяют использовать весь потенциал компании, но также сопряжены с возможностью финансовых потерь в будущем.

Следовательно, при разработке стратегии внешнеэкономической деятельности необходимо достичь максимального соответствия целей и конкретных методов их реализации. Что, в свою очередь, требует детализированной разработки стратегии маркетинга, стратегии развития и обеспечения производства, финансового плана компании, а также стратегии развития системы менеджмента.

Маркетинговая составляющая внешнеэкономической стратегии позволит проанализировать конкурентные преимущества, факторы макросреды, инфраструктуры региона, возможные способы выхода на рынок, разработать стратегию ценообразования и стимулирования продаж.

Стратегия развития и обеспечения производства дает возможность оценить уровень информационного, ресурсного и правового обеспечения процесса производства, параметры «входа» системы и ее «выхода», выявить узкие места, а также подготовить технико-экономическое обоснование проекта.

Однако эффективность реализации всех вышеперечисленных стратегий возможна лишь при максимальном обосновании показателей финансового плана и соответствующем анализе функционирования системы менеджмента. При этом на качественно высокий уровень должен быть поставлен процесс организации и контроля за реализацией внешнеэкономической стратегии предприятия. Систематическое наблюдение за стадиями реализации проекта позволит не только устранять возникающие отклонения на первоначальном этапе, но и предупреждать их появление в будущем путем корректировки параметров существующего плана. Для этого необходимо обеспечить гибкость стратегического планирования.

Фазы планирования стратегии внешнеэкономической деятельности можно представить в следующей последователь-