

Neologisms In Medical Practice: Their Potential To Be 'Useful', 'Useless' Or 'Misleading'

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ABSTRACT

Background: *The advances in human endeavours have led to changes in technology. New words, neologisms, have been creeping up and are coined with astounding speed. While these terms are fascinating etymologically, their impact needs to be appreciated from a realistic perspective to keep one aware of the collateral changes we are importing into common language, particularly in medical practice. The aim of this paper is to identify some of such neologisms, outline their current use and then discuss their potential to be 'useful', 'useless' or 'misleading'.*

Methods: *Terminologies in medical practice and information technology have been selected by the authors and their meanings have been analysed.*

Results: *The terminologies of our present interest include: Computer literacy; Surfing the web; Networking; Information technology; Medical informatics; Telemedicine; Capacity building; Problem-based learning; Mentoring; Learning curve; Evidence-based medicine; Impression; Co-morbid conditions; Family medicine; Andropause; Surgical site infection; Confidence interval.*

Conclusion: *Neologisms are inescapable in the face of rapid advances in knowledge, equipment and information dissemination to and through diverse cultures and languages. In their assimilation, we should be considerate in discarding familiar terms that have served time.*

KEYWORDS: *Neologisms; Medical practice.*

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INTRODUCTION

The advances in human endeavours have led to changes in technology in recent times at a galloping pace. We have witnessed dramatic changes in communication driven by military needs or the desire to address common daily household and office chores. The net effect is the 'shrinking' of the world to a global village. The lexicon has of necessity had to keep pace with these advances. New words, neologisms, have been creeping up and are coined with astounding speed as the need to verbalise events emerges. While these terms are fascinating etymologically, their impact needs to be appreciated from a realistic perspective to keep one

aware of the collateral changes we are importing into common language, particularly in medical practice. We shall, in this communication, attempt to identify some of such neologisms, outline their current use and then discuss their potential to be 'useful', 'useless' or 'misleading'. The terminologies of our present interest are listed in Table I.

Table I. Terminologies of present interest

Computer literacy
Surfing the web
Networking
Information technology
Medical informatics
Telemedicine
Capacity building
Problem-based learning
Mentoring
Learning curve
Evidence based medicine
Impression
Co-morbid conditions
Family Medicine
Andropause
Surgical site infection
Confidence interval.

Being able to use a computer is described in some quarters as '**Computer literacy**'. The extent to which literacy can be applied to all the uses and abuses associated with the use of computers is quite debatable. Indeed, there is urgent need to reassess the potential of the computer to promote illiteracy or the negative impact of calculators on mental arithmetic. One of us paid a bill of N 20,000 for a flight ticket in 200 Naira bills. After counting the pieces, the cashier dug out her calculator from her wallet and set forth to calculate the total. In another experience, an eight-year old '*computer literate*' primary four pupil asked his mother why his lesson teacher is bothering him with learning how to spell, when the computer can do it for him. The mother, in reprimanding him, suggested that he might as well ask why he should learn how to write, since, after all, the computer can type for him. Thus, the potential of the spell-check and grammar check functions in word processing programmes to have a negative impact on the learning of spelling and grammar by primary and secondary school students is real. Why

bother learn something if the calculator and computer can do them for you?

Accessing the internet through the computer is '**surfing the web**', while '**networking**' has been stretched to cover simultaneous accessing of information at or from various locations, as well as making and maintaining contact with professional colleagues. In *surfing the web*, there is the need to differentiate between indexed medical literature and the multitude of medical information hoisted on the web for various purposes. *Networking*, whose origins may be traced to conference calls of telephony which had become established in the 1960's, may be subject to misuse with potential distractions inherent in chat groups, list-serves and many other mundane electronic interactive pastimes.

The two words, 'information' and 'technology', are as old as man, and each has been used effectively in many contexts. Compounding them to produce the term '**Information technology**' is a phenomenon that needs closer thought to comprehend. What does this term really address? In customary parlance information is an abstract noun. Technology, through the palpable gadgets incorporating the microchip, has put the bite into information and given it a concrete veneer. Thus, the tangible computer hardware and software milieu has stripped 'information' of its abstractness. While the practice of medicine has always been about the use of all manner of information about man and his environment, the term '**Medical informatics**' has closely followed on the heels of '*information technology*' to confound those who still have a conservative attitude towards computer technology. What really does 'Medical informatics' mean, in concrete terms? Simply put, it is medical use of information from the computer or computerized medical information. There is justifiable anxiety in some quarters that this will soon evolve into a quasi-medical speciality.

The term '**telemedicine**' may be considered new, but its roots can be traced to the one-way real-time video conferencing introduced in the psychiatric ward of the University of Nebraska in 1959. However, in the last two decades, because of the explosion in information technology and advancements in satellite communication, it has become an inevitable tool in medical practice. It has been defined as 'the use of electronic information and communication technologies to provide and support healthcare when distance separates the participants'¹. A very useful tool, it can however be subject to abuse by those who fail to appreciate the

emphasis on the key words in its definition, i.e. 'support', 'distance', 'separate' and 'participants'.

'**Capacity building**' is now the fashionable jargon to address the issue of personnel/human resource development. In spite of a runaway population explosion in the underdeveloped world (euphemisms such as 'developing' are rather deceptive as they impact a delusion of advancement) it has been realized that the employable work force is on a dangerous declining slope. Population depletion may be part of the cause of manpower deficits in the advanced world. This led in medical practice to the redeployment of other healthcare workers into areas exclusively staffed by doctors. Thus long ago, the nurse anaesthetists buoyed up the needs for anaesthetists in the United States of America and Europe. This trend quickly transcended to the underdeveloped world. However, recently, as nurse anaesthetists began to take a mile from the inch they were given and in order to stem the rivalry in the offing, they are being phased out of service, at least in the very institution that pioneered nurse anaesthetists training in Nigeria. However, this is not so in Europe and the Americas. Rather, newer areas to reassign nurses, who are tired of traditional nursing, are emerging to cope with the propensity to consume the fruits of technological inventions. Thus we now have nurse endoscopists. In the USA nurses who now prescribe are called physician assistants or paramedical aids. A little stretch of the imagination will usher in the nurse cardiologist, the nurse urologist and the nurse brain surgeon. The line dividing the radiographer from the radiologist, the sonographer from the sonologist, the lab technologist from the pathologist, etc. thins by the day. This is all in the interest of *capacity building*.

Medical education is a field surfeit with neologisms. Of particular interest is '**problem-based learning**'. Human learning has always included learning from difficulties (problems). But the way non-physician medical educationists extolled the 'new' approach to learning gave the false hope of effortless learning. Perhaps it was hoped that 'the new concept' would usher in a learner-friendly 'Utopia'. It is quite in order to approach problems from different perspectives. However the enthusiasm for all that is termed novel should always be balanced by professional realities.

Mentoring is not really a new terminology in education. However, the increased application of the principles of educational psychology in the medical education milieu is threatening the age old concept of apprenticeship in medicine.

Apprenticeship appears relegated to the obsolete as students, doctors, resident doctors and consultant doctors narrow hallowed gaps in the professional hierarchy, in keeping with the shrinking frontiers wrought by information technology and its application towards effective mentoring.

Learning curve was first introduced in 1980 and concerned production line activities in the aircraft industry. It has recently been co-opted into medical practice². It concerns acquisition of and adeptness with a technique or procedure. Euphemistically it covers up for a teething period in the acquisition of a skill. Inherent in this blanket use of the terminology is the potential for professional abuse to hold brief for issues that would ordinarily bother on negligence.

Sequel to problem-based learning is the bandied '**evidence-based medicine**' as a counterpoint to personality or authority based medicine. Some surgeons, intent on avoiding marginalization, and forgetting that a surgeon can aptly be described as a physician who 'works' as opposed to 'thinks', have insisted on the term evidence-based surgery. Some of us watch with our mouths agape as evidence-based medicine has become the vogue for medical *journalists*, which is what authors of medical literature are in basic terms. In deed for long, medical practitioners have always incorporated evidence from their experience or that of colleagues into their practice. Perhaps what is new in evidence-based medicine is the neo-emphasis on and incorporation of results of controlled trials often cocooned in statistical jargon. There is the objectionable contemporary suggestion that what was practiced before the *born again* evidence based medicine was exclusive authority based medicine. We should disabuse our notions from this impression.

Since the simple English word '**Impression**' was substituted for Diagnosis in medical practice, the gap between the medical novice and medical expert has been eliminated. While the expert brings all his/her years of experience to bear towards speedily articulating a diagnosis, all the novice needs to do is hear one symptom, recall a long list of big diseases associated with that symptom and proceed to announce the most impressive of them as his '*impression*'. This, of course will be quickly followed by multiple investigations and poly-pharmacy. Substituting 'impression' for diagnosis thus makes complete nonsense of thoughtful differential diagnosis.

Patients, especially those requiring surgical intervention, have to be assessed to identify and address concomitant illnesses. These are now

called **co-morbid** conditions. This terminology tends to ignore the known fact that the same pathologic process may manifest differently in different systems. For instance, the atherosclerotic process can result in myocardial infarction or cerebrovascular disease or erectile dysfunction in the cardiovascular, central nervous or genitourinary systems, respectively. When all three manifest in one patient, which two are co-morbid to which one?

At the risk of sparking off a medical specialty 'tea cup storm', let us beam our searchlight on the term '**Family Medicine**'. 'General practitioner' does not sound quite specialist, hence the need for an evolution to a new name in a medical specialty crazy environment. And the hysteria has to be infectious. In Family Medicine, one treats a family as a unit psychically. In reality, each member is treated on his/her merit: child, male, female etc. So we are back to square one as the usual specialists: Paediatrician, Geriatrician, Urologist, Sonologist etc are needed to complement Family Medicine.

The quest for gender equality was bound to draw even after years of dominance by women's insistence to be seen to be equal with men. The Beijing conference was the watershed in what was about to become an epic. Men have, since Beijing, opened a new biologic line of defence. Defence itself, we were taught in the army, is nothing but another form of attack. To get even post Beijing in the medical lexicography, menopause needed a male equivalent. The male hormone androgens begin to deplete from fifty. Thus sprung from the wordsmiths' **Andropause** to describe the flushes men have come to suffer from the treatment of prostate ailments.

At a recent surgical conference in Banjul, the Gambia, a senior participant from America was quite emphatic that we should no longer mention wound infection. It is now '**Surgical site infection**'. Long ago Shakespeare, in *Romeo and Juliet*, observed philosophically 'what is in a name! That which we call a rose by any other name would smell as sweet'³. Surgeons have always known wound infection to refer to infection in or close to wounds. Wounds have always been the site of surgery. We can, and should imbibe the neologism of *surgical site infection* without the possible collateral punitive damage to the chances of the postgraduate student facing an exit examination.

The jargons of medical statistics will subdue many a postgraduate candidate any day. Even as the old terms remain elusive to capture by the average/normal medical brain, neologisms in this field are continuously spewed out. Student's t test,

Chi square etc were a block to the progress of many aspiring 'medical journalists'. One had to avoid the word significant to evade the prancing eyes of the statistics enthusiastic editor or reviewer of a paper. Now significant is not enough. They have invoked '**confidence interval**'. Yet statistics is only a probability. While it may give a clue to a population, what happens to the individual in reality is a different matter. We dare ask; to what extent has the use of '**confidence interval**' prevented the use of statistics as the drunk would use a lamp post, for support rather than for illumination.

Neologisms are inescapable in the face of rapid advances in knowledge, equipment and information dissemination to and through diverse cultures and

languages. In their assimilation, we should be considerate in discarding familiar terms that have served time. New brooms sweep well but old ones sweep the crevices and corners. Apologies to Erumaka L, our Latin teacher of old.

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