COMPUTER, LETTERS AND TYPOGRAPHY IN THE 21ST CENTURY: ANTECEDENT, TREND AND EXPECTATION

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Abstract

The computer is doubtlessly a device considered indispensible in the contemporary global information and communication order. Its widespread application in carrying out sundry functions in virtually all facets of human life has revolutionized the ways individuals and societies perceive, respond and relate in a manner that enabled the imbibing of new values, development of new attitudes and emergence of new societal cultures. The results have been some basic fundamental changes in the operational paradigm of professions like mass communication, which requires graphic designs in the production of print media.

Observation has, however, revealed that the ease with which the computer can be operated makes it prone to abuse by inexperienced or non-professional graphic artists who use it to design books, newspapers, magazines, brochures/catalogues, other literatures as well as posters and handbills that are printed on paper. Consequently, this category of designers selects

and applies fonts, which they combine with other design elements like lines, colours and shapes inappropriately because they lack appropriate typographical knowledge.

This article is, therefore, a discourse on the problems inherent in the designs created with computer by designers without knowledge of typography and its implications for graphic design. It commences by executing a brief historical survey of the evolution of writing, the development of alphabets and lettering. In doing this, it focuses on letters, lettering, typefaces/fonts and typography within the ambit of graphic design and their implication for information dissemination as components of channels of mass communication. The article concludes by proffering suggestions on how typographical problems that could be encountered as challenges in using computer as a means for graphic designing can be surmounted.

Keywords: Graphic design, letters, typeface, font, typography

Introduction

The computer today is doubtlessly an ubiquitous device considered indispensible in the world's contemporary information communication order. Its widespread application in carrying out sundry functions in virtually all facets of human life has revolutionized the ways individuals and societies perceive, respond and relate, enabling the imbibing of new values, development of new attitudes and emergence of new societal cultures. It has also played significant roles in the relationship between man and his environment and the modes and manner by which the interaction, hitherto facilitated by other devices, are affected. The results have been certain basic fundamental changes, albeit inevitably transient, in the paradigm of professions, of which mass communication that requires graphic designs, is included.

The impact of the computer is felt by the speed, ease and efficiency with which it operates with electromagnectic technology to facilitate the channels of graphic communication created by graphic artists (Idemili and Sambe, 2007). Among the devices associated with the computer in the task of effecting visual communication are mobile phones equipped with camera, videophones, television, Internet, facsimile machines and digital printing machines. In doing this, information must be visually designed – a creative art task, which for the computer, requires rational application of the elements and principles of art in the design of graphics like handbills, posters, banners, calendars, packages, newspapers, magazines, books as well as catalogues and brochures. Other channels of graphic communication designed with computer in this context include postage stamps, currency notes, business complementary cards, cheque leaves, ATM cards, greeting and invitation cards, letter headings and television graphics, the latter of which is an example of electronic

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media that falls outside the scope of this chapter article.

This article is an historical discourse on letters, lettering, type faces and typography within the ambit of graphic design, and their application in information dissemination. In doing this, it focuses on print media graphics, and attempts to reveal the dysfunction attributable to inexperienced or non-professional graphic artists who lack of typographical knowledge but apply fonts in their computer wrongfully in creating designs. It is necessary, at this juncture, that I define the word typography, which according to Hanks (1979), is the art, craft or process of composing type and printing from it. Its definition includes the planning, selection and setting of types for a printed work, a task which, nowadays, can be carried out during computer typesetting. As a consequence of the above, the typographer with visual art training can design or create typefaces.

It is also apposite that I state that I shall, henceforth, apply the words *type face* and *font* interchangeably in referring to the physical appearance of letters, which renders them distinguishable from other letters in a design.

Lettering in Art

Letters and lettering have always been subjects of art since ancient times. According to Hansen (2005), writing is considered to have began at about 3500 B.C. However, the most primitive form of writing, referred as pictographs, were pictures of people, animals and other objects drawn, inscribed and painted, which abound on the walls of caves and rock surfaces typified by those in Altamira in Spain and Mozambique and Tasili, in the Sahara area of northern Africa (Willett, 1971). These visual images, believed to have been executed by early men in Paleolithic era, some thirty-five thousand years ago, subsequently metamorphosed into ideograph. It is exemplified by the Chinese, Japanese and Korean writings – some advanced form of pictographs – which pertain to the use of abstract symbols to represent an object or idea. Ideograph was followed by phonographs in which symbols represent spoken sounds, and not for objects or ideas. Alphabets such as the Roman alphabet were developed by assigning specific letters to individual sounds that are heard when words are pronounced (Hansen, 2005).

The invention of alphabets like cuneiform, hieroglyphics, Hebrew, Arabic, Romans and those of other Far Eastern people engendered the need to evolve and develop better means of writing in these alphabets with different formats, materials and tools. Thus, early letters were typically written with stylus as pens made of assorted materials on clay tablets and papers made of papyrus and parchment. The Mesopotamians wrote on clay tablets which were fired later to make them durable. The Rosetta stone, a basalt slab carved with parallel inscription in Greek, demotic and hieroglyphics alphabets, which was discovered by the French in 1799 and deciphered two decades later by Champollion, a French scholar, which served as a key in the

translation of Egyptian hieroglyphic texts, is evidence that man has written letters on stones and rock surfaces in the past (Brinton et al., 1976).

The development of the alphabet between 1700 B.C and 1500 B.C. improved verbal cum literary communication. Its culmination in the Roman alphabet, applied widely in lettering and printing today, can be traced to the Egyptian pictorial hieroglyphics whose characters, numbering one thousand and three hundred, was reduced to twenty-two characters by the Phoenicians (Lewis and Brinkley, 1954). The Greeks to whom the Phoenicians spread the practice of writing with their "new" alphabet at about the ninth century B.C. adopted and made it a feature of their civilization after conquering the Phoenicians. The Etruscans who hailed from Asia modified the Greeks' alphabet before they were conquered by the Romans, to whom the design of the form of the letter, as we know it today, is attributed. Inscriptions of Roman letters on public buildings and on triumphal arches indicated that the alphabet was written in capital letters only and in angular manner that terminates in serifs. Apart from this is the existence of rustic capitals which were freer and could be written quickly. There were also, early manuscripts that portrayed cursive handwriting and uncial, which by synthesis metamorphosed into lower case letters over time (Lewis and Brinkley, 1954).

Efforts were made by people with literary traditions such as the Romans, Chinese, Japanese, Indians and Arabs to document things and communicate their thoughts in certain ways with letter that led to the development of alphabets and methods of writing them into art forms over time. It is in this vein that early Roman literatures like encyclopedic works on liberal arts, exemplified by Varro's *Disciplinarum libri novem* comprising discussion of grammar, rhetoric, dialectic, geometry, arithmetic, astronomy, music, medicine and architecture, which revealed ancient Roman educational thoughts (Boyd and King, 1975), were written in Latin. This was done calligraphically with quill pen and ink on parchment that were rolled up to form scrolls.

Calligraphy, the art of manual lettering, flourished between the fourth and seventh century A.D. in Europe. It reached its zenith in the medieval era with the creation of illuminated manuscripts by monks, who lived in the several monasteries that had scriptoria (copying rooms) in which books, including the Bible, were hand-copied. Gutenberg's invention of a printing press that was operated with moveable type in the fifteenth century revolutionized printing technology and marked the advent of typography (Lewis and Binkley, 1954).

Letters in Visual Art

Letters have appeared in other visual art forms, namely: textile designs, ceramics, sculpture and painting. This is aside graphic design, where it is prominent. Textile fabric on which newspaper design elements such as mastheads or name plates, headlines, columnised texts and photographs are printed as motifs, have been sewn and worn as garments. Some ceramic wares like jugs, mugs, and plates are sometimes decorated with letters composed in a juxtaposed or superimposed manner to beautify them. The names of individuals, groups of people and organizations or corporate bodies have been printed on ceramic wares that are used as objects for

advertising.

Among the numerous ways that sculptors have incorporated letters in their artworks is their application of letters, sometimes created with assorted media and techniques like cement and fibre glass casts, cut and glued plastic, carved wood, and metal cast to execute artworks that are mounted on pedestal in public places. Wrought metal gates with letters that may denote the names of a buildings have been created. There are also carved door panels with such a feature. The top of some buildings, especially high rise buildings like the Cocoa House in Ibadan, have been adorned with letters which purportedly represented their names.

Perhaps in no other visual art era can the fascination of the fine artist with letters be better appreciated than in the twentieth century when some Western artists engaged in the practice of conceptual art – a term coined in the 1960s by Sol LeWitt, an American artist to refer to artworks whose actual execution is of subordinate importance when compared with the ideas expressed in them. This is exemplified by the wood relief titled, *Millenovecentosettanta* (meaning one thousand nine hundred and seventy), which was created by Alighiero Boetti (1940-1994). The artwork executed in a size of 49 by 49 cm shows the year: 1970, during which it was created, transferred from a numerical to verbal forming a horizontally ordered row (Marzona 2006).

Many paintings of Davis Struat, an American abstract painter, have words and letters incorporated into them, a practice which Goossen (1959) guessed is traceable to his father's sign-painter and newspaper career. His *Combination Concrete* and *Pochade*, both executed with oil in 1958 typify these works.

The Nature of Channels of Graphic Communication

All channels of graphic communication comprise of either illustration or text of are a combination of both illustration and text. While none of these variables of graphic communication can be deemed superior to the other, or ranked higher in the hierarchy of graphic design elements as both are complementary, it is noteworthy that the choice and application of fonts with which designs are created, require special typographical knowledge. This is due to the fact that illustrations created in the form of drawings, paintings, prints or photographs, are universal channels of communication that seldom require explanation for their understanding other than their visual images. In contrast to illustrations, letters of the alphabet exemplified by the Roman alphabet, may be not be easily understood if the design in which they feature is created with one of the numerous fonts inherent in the computer software typographical suites, which may mar rather than make them legible to suit the purpose for which they were applied. Making the task more complex is the possibility that the designer could be faced with the problem of selecting what he or she considers as the most suitable font among the several thousands of fonts that could be at his disposal to execute assorted designs.

Fonts are created in various forms in terms of styles, sizes, weights, heights and width. Hence, fonts like *Futura* are available in expanded, elongated, light, bold, extra bold, heavy, condensed, italic and medium italic forms. There are also *Futura Bold Condensed, Futura Light*

Condensed, Futura Medium Condensed, Futura Extra Black Condensed, Futura Book, Futura Book Catalogue as well as *Futura Book Italic* all of which are suitable for certain channels of graphic communication (Font Shop, 1982). *Futura* and *Futura Book Catalogue* fonts are so similar that that it will require a graphic designer with sound knowledge of typography to spot the slight difference between them in order to apply the fonts appropriately for designs.

The efforts of typographers in mastering of fonts with a view to using them appropriately led to the classification of fonts into two broad categories, namely: text font and display font – an exercise in which the physical appearance and sizes of fonts, and the use to which they are put are taken into consideration. Text fonts, in this sense, pertain to fonts of between 10 and 14 points in size which belongs to the roman family typeface that are adorned with serifs and are capable of reducing fatigue and subduing monotony in visual perception. They are used predominantly in creating the text portion of literatures like books, newspapers, magazines and catalogues. On the other hand, display fonts are characterized by assorted typefaces suitable for use in writing the captions or copies of designs made on large formats. Such designs include those of newspapers and magazines, posters, calendars and some kinds of big book. The size of these fonts begins from about 16 points and exceed well over 100 points as the case may be if they are blown up to suit bill board posters or signposts.

Graphics in Post-Gutenberg Printing Press Era

The early printing press which came into being after Gutenberg's invention of the movable type printing machines were mainly concerned with printing literature, most of which were associated with Christian religious worship such as the Bible, catechism and hymnals. They also printed some books, which because of the high cost of manual labour involved in the venture and hence, their expensiveness, were produced on commission from the European wealthy aristocrats. But profound effect of printing on the socio-economic and political life of the society exemplified by the Reformation and Renaissance changed the roles and scope of the printing press from that of being used as a means for producing literature for the Church to facilitating the production of secular books that facilitated education and brought about an enlightened citizenry. In time its effect permeated trade and commerce where it was, for instance, depended on for the printing of the maps which Western explorers and merchants used to navigate the waters in their voyages to parts of the world.

Among the printers whose typographic activities are worth mentioning in this article are two Germans printing craftsmen, Arnold Pannartz and Conrad Sweynheym who established their press in 1465 at Subiaco in Italy, the location of the Benedictine monastery. These men who were experts in designing gothic letters that were generally devoid of serifs, cut some semi-roman founts successfully after some initial difficulties at the task. However, their works differed from those of Nicholas Jenson, who in 1470, completed a fount of roman letter that was very readable and lively as a type face, and were used to print books in which spaces for decorative initials and other illuminations (decorative illustrations) were provided.

In Venice, Aldus Manutius, a lover of Greek classical writings set up a press with which he printed a volume of the works of Aristotle in 1495, and those of Aristophanes, Thucydides, Sophocles and those of other Greek writers. He went on to print Latin and Italian literatures with letters set in roman typeface. Amongst these were Petrarch's *Poem* and Dante's *Devine Comedy*. One of the several fonts that were cut for him was the one by Francesco Griffo, which he used to print Colnua's *Hypernotomachia Poliphili* in1499.

Printing was introduced into France by three German printers from Mainz in 1470. The French typeface, which they created exhibited influence of the Italian model from which they produced their typeface, was soon replaced with a variety of gothic typefaces. The first of these which was referred to as *fere humanistic* or *lettre de forme,* had letters with pointed characters written separately and were used to print liturgical books. Another typeface, a rounded letter, called *lettre de somme* was used for printing all kinds of books. The *lettre bastarda* , a type of letter derived from the early Italian Chancery style and the French gothic script was applied for producing manuscripts.

Some renowned French printers, publishers and typographers were Aldus, Henri and Robert Estinne, Simon de Colines and Geofroy Tory, the latter of whom was the official printer of the King of France in the sixteenth century. Others were Claude Garamond, an innovative type designer, and Christopher Platini, a printer and publisher of Antwerp in the 1550s, who is considered to be the first printer in his time to use copper engravings for his book's title page. Philippe Grandjean was a French designer who was famous for his typeface called *Romain du Roi* that had barely bracket serif , and which he designed on the orders of the King Louis XIV of France for the Royal Printing Establishment towards the end of the seventh century.

In England, William Caxton, an author, publisher and printer established a printing press near Westminster Abbey in 1477. There the Englishman printed over a hundred books and documents with assorted fonts of black letter. Other printing presses which were set up in London, Oxford and St. Albans worked with gothic typefaces until Richard Pynson, a printer introduced the roman typeface into England.

The interference of King Henry VIII with the monasteries and the printing of Church books beginning from 1531, as well as the Reformation had devastating effects on printing and publishing industry with the result that graphic design and typographical practices remained in doldrums for well over a century in England, and was revived in 1695. In the century that followed, and in which baroque influence was reflected on architecture and other decorative arts, printing began to flourish, albeit at a rather slow pace.

William Hogarth, William Calson, John Baskerville, William Bulmer William Martin, Thomas Bensley and John Bell contributed immensely to the development of graphic designing, typography and printing in England. For instances, Hogarth was renowned for his silver-plate and copper engraving with which he engraved trademan's cards, among others; Martin and Richard Austin designed new typefaces for in the instance of Bulmer and bell respectively. The latter happened in 1785.

It is noteworthy that no account of the development of printing graphic designing and typography will be complete if mention is not made to the contribution of some French and Italian artists to classical typography in the eighteenth century. Of these the works of the Frenchmen, Simon Fourniers and Firmin Didot, and that of Giambattista Bodoni are commendable. Ditot's typeface was characterized by abrupt fine serif that was influenced by Grandjean's typeface and later adapted by Baskerville.

Graphics Artists and the Development of Modern Printing Press

Graphic artists who worked for the press which printed and published books, newspapers, journals and other related literatures in the pre-modern computer era were by their training knowledgeable and skillful in the application of letters in their designs. These artworks were created by layout artists and typographers or either of them who doubled to play both roles in printing and publishing firms. One of the typographic roles is the selection from the infinite text and display fonts, which the printing press typesetter used in making the cast-off for the design's copy. The problem of acquiring fonts for use in the mechanical typesetting needed in the printing operations of press machines like the Linotype, which was introduced about 1886; the monotype, Ludlow, Nebitype and Elrod (Odhams, 1965), compelled industrial printing press machine producers to send catalogues with details of assorted typefaces that they could supply to their customers on demand in the mid-twentieth century. Hence, Linotype, a printing machine producing firm offered a typeface programme, which includes well over 1000 roman and non-roman typefaces in its 1982 catalogue of typefaces (Font Shop, 1982). Among these typefaces are those produced specially for it on commission by some of the world's leading type designers like Adrian Frutiger and Herman Zapf. Linotype press manufacturers also showcased some typefaces for digital typesetters associated with newly invented phototypesetting machines such as Linotronic, Linofilm, VIP and Linotron 303 that operate with film fonts, and well over 10,000 special signs used in diversified areas of human endeavours.

Earlier in 1959, The Studio Limited has, after observing the dearth of source of typefaces of Roman the alphabets which should guide graphic designers in their artistic creations, published a book featuring a collection of typefaces. Some of the typefaces were in the form of script and brush styles, which reduced considerably, the need for hand-lettering in printed display and facilitated the design of large format jobs like posters for out-door advertisements (The Studio Ltd, 1959). The typefaces in the collection include those designed by Klingspor, C.E. Weber, Ludlow, Niebolo, Ludwig & Mayer, Stempel and Berthold.

In their writing on the contributions of Jan Van Krimpen, Eric Gill and Reynolds Stone to typographical development in the twentieth century, Lewis and Brinkley (1954) reveals that the typographer as a graphic artist at that time, tackled the problems of commercial or advertising printing, and applied his mind to solving, logically, the problems associated with the production of publicity and industrial literature through his understanding of the potentials and weaknesses of various printing and graphic reproduction processes. According them, pre-modern computer

graphic designers, who are typographers by training, possed knowledge and multiple skills in art and crafts, which enabled them to draw, punch cut wood blocks and metal plates to make matrix cast and operate mechanical printing presses in order to trial print with designed typefaces. Such was the enormity of the work of the typographers, many of whom received training in some of the best formal art educational institutions in Europe at that time, that some of them exemplified by Ludovico Arrighi Vicentino, the Renaissance Letterer ended up being a scribe, designer, publisher and printer (Lewis and Brinkley, 1954).

Krimpen, a Dutch who designed the typefaces:Iand *Cancelleresca Bastarda*, was precisely a typographer and type designer. Eric Gill, an Englishman was a type designer, letter cutter, engraver, sculptor and writer. His works include *Perpetua, Gill's Sans Serif, Golden Cockrel, Joanna, Jubilee and Bunyan.* Reynolds Stone, another Englishman was a letter cutter and engraver whose works in the form of letter heading, bookplates for private patrons, trade marks and devices for publishers, paper merchant printers, among others, portray his prowess at creating splendid letters, which he had cut and engraved with considerable mental resilience. With the exemption of Stone who was worked after graduation at Cambridge University printing press in 1930, the other two artists developed their career working as apprentices in commercial printing presses. Rennie (1998) informs that Jules Cheret (1836-1932), the son of a letterpress printer and typographer, who is credited with bringing about dramatic stylistic developments in poster art in London in the nineteenth century received training in printing ai a lithographic workshop in London.

The industrial revolution in Europe and USA in the nineteenth century set a new paradigm for print media as a vessel for producing literature that disseminated information on manufactured commodities, trade and commerce. Surplus goods and the services made possible by mechanized means of production in the Western world needed to be advertised in newspapers and other channels of graphic communication, including poster art which development Cheret was said to have contributed immensely to. Artists created designs which were visualized on formats that had letter in the form of display and texts typefaces with or without illustrations portrayed on them. Thus typography found new avenues for its practice, and invariably became an aspect of the curriculum of the art programmes of the existing and new art schools and colleges established in the West to provide designs for the fledgling manufacturing industries (Cornford, 1970; Eisner and Ecker,1970).

The aesthetic value of signs, posters and typography in the urban environment of Britain in the 1940s was recognised and constituted the subject of scholarly writings like that of Cullen cited in Rennie (1998). So great was the growing importance of art to industrialization in the Western world that exhibitions of advertising artworks, which includes posters such as those designed by Toulouse-Lautrec, Mucha, Bonnard, Dudley Hardy, John Hassall and the Beggerstaffs (William Nicholson and James Pryde) were held in France and London in the 1980s. Shifman (1998) reports that 98 examples of lettering, typefaces, book title pages, 124 posters, industrial product wrappers, business cards, newspaper advertisements and wall

calendars were among other graphic artworks with typographical elements that were featured in the German industrial arts exhibition that were mounted in some museums of the United States of America between 1912 and 1913.

Scholarly interest and concern for art and its relevance to commerce industry crystallized in many movements in the middle of the twentieth century, a couple of decades before the advent of present use of computer in graphic designing for print media production. To be remembered for its remarkable impact on the design of letters and typography is the Bauhaus School of Art, Applied Arts, and Architecture in Germany, which working on the principle grounded on the functionalism of the designs for the architecture, industry and printing, ended up creating a Bauhaus style of typography. Its proponents included Walter Gropius, an architect and the school's head; Paul Klee, a Swiss abstract painter, and Moholy-Nagy and Herbert Bayer, a German graphic designer and typographer. The latter two were teachers in the school, which designed typefaces were apparently stripped off the adornment that serifs endow letters (Lewis and Brinkley, 1954; Glennon, 2000).

In Nigeria and some other European colonies in Africa, the introduction and use of printing press in the nineteenth century was done for reasons that were not remotely connected to the promotion of industry and commerce. The Presbyterian Mission which began printing in Calabar in 1849, and Church Missionary Society (CMS) used their printing presses to produce Christian liturgical literatures and school books to enhance their proselytisation and education of the country's indigenes in their bid to "civilize" them. The printing press which Reverend Henry Townsend of the CMS set up in Abeokuta in 1859 was used to publish the *Iwe-Irohin,* the first local vernacular newspaper in Nigeria, and which subsequently became the hub for training the printers who manned the early printing press established elsewhere in Nigeria, and those of the country's nationalists during the first half of the twentieth century to fight the British colonialists.

The pages of *Iwe Irohin Yoruba* contained mainly the texts of news stories and some features that were composed with single detached letter types by compositors to facilitate their printing with the letterpress machine, suspected to be Townsend brother's, which he had brought form England on one of his trips abroad (Ajayi, 1965). Several editions of the newspaper had no indigenously created visual designs. Even volumes of *Lagos Standard* (1903), *The Nigerian Times* (1910), i (1917) and the *Nigerian Daily Telegraph* (1935) had only a few photographs and illustrations used mostly for commercial advertisements (Emi, 1980). Moreover, the designs of the advertisements which were published in some newspapers like the *Daily Times* that was set up in Nigeria in 1926 by the Daily Mirror Group of London had its visual editorial materials like cartoons titled: "Burin," "Buck Yarn" and "Garth," culled from *Daily Mirror,* its foreign sister newspaper (Emi, 1980). This, therefore, implies that the typographical work pertaining to the graphic designs printed in the early presses were done abroad with little or no in, put from Nigerians in the country. In fact, Lintas (1978) confirms this state of affairs when it states with glee that E.J. Kealey and Ernie Damer, two visual artists of the West African Publicity Limited

established in 1928, who executed most of its newspaper advertisements and billboard poster designs for products like "Ovaltine" beverage," Clark's Thread," "Good Year" tyres, "Booth's Gin," "Raleigh" motorcycle and "Nugget" shoe polish, operated from the firm's art studio in England and never set their feet in Nigeria.

The status of graphic design and printing as professions, both of which are connected and have implications for typographical practice, at the beginning of the century was low as there were no art or schools in Nigeria at the time to train highly skilled professionals in these fields. Prominent Nigerian printers like Pius Ayan who rose to the position of the director of the Daily Times printing press section, and was a typographical consultant to *The Guardian* (Nigeria) newspaper publishers at inception, was sent abroad in the early 1950s to study printing technology by the Daily Times publishing company.

Graphics in Pre-modern Computer Age Art Studio

The existing printing press technology in the pre-computer era, which enabled the graphic design of text letters (letters for use in typing the text) for copies and manuscripts of serials and periodicals, was not conducive for the design and production commercial artworks. Graphic artists had to device other means to meet the challenge of creating display letters (large letters used for copies or captions) for the design of posters, calendars, package designs, newspaper advertisement, banners and related publicity materials for centuries before Gutenberg invented his printing machines and the period when lithographic machines was invented. Engraving on silver and copper plates as well as wood block on which illustrations and designed typefaces were cut, were used before Gutenberg, and incorporated into machines to print the designs of commercial artworks like tradesmen cards and advertisements up to the twentieth century.

The situation was more difficult in developing countries because most printing presses in these places had machines which lacked the stock of designer fonts like those produced by Linotype, Monotype as well as Amsterdam Typefounders, American Type Founders Co. Inc., the Nebiolo type foundry of Turin, and Deberny & Peignot available in the advanced Western world. Advanced technology hardware were slow in reaching developing countries, which like Nigeria in the 1980s placed import restrictions on some printing equipment and materials while she was grappling with her structural adjustment programme (SAP).

Graphic artists who were confronted with the predicament of creating display letters for their artworks resorted to copying by tracing letters from their prototypes that they sourced from local and international newspapers, magazines calendars and other print materials that had copies written in the desired display letters. In fact, we were advised as graphic design students in school in the 1970s and 1980s, to source for and maintain a portfolio of such materials, which together with the illustrations in them, become useful when we apply them in carrying out design assignments. Another method of tackling the display letter problem is to create the necessary letters by applying the grid method as a guide for copying letters to be used for display purpose.

This is not to discountenance the creativity of some graphic artists such as sign writers who invented new forms of letters of their own through the constant letter writing with brushes, directly, on formats. The designs featuring such letters in artworks that were created by sign writers to beautify the wooden body of haulage trucks, which Beier (1960) noted as a novel art practice in Nigeria at the time she attained independence, typify this creativity.

Mention must be made, at this juncture, of the use of *Letraset*, the trade name of a particular kind of transferable letters, which includes text and display fonts. Its use which was popular among professional artists and art students during the period under discussion was discontinued at the advent of modern computer in Nigeria in the late 1980s (Emi, 2006).

Typography in Graphic Design

From the foregoing, it will be realized that letter writing which had hitherto been done manually by hand before the invention of the printing press had to be done thereafter with another means that involves the use of letters that were cut out of a hard substance. Although wood and metal plates with letters carved or engraved respectively, in relief served the purpose, Gutenberg's press enabled the use of letters each of which was cut in the form of a block, and composed with others to represent the words and sentences of book's text. The letters, referred to as types, were cut stylishly by craftsmen who made type cutting their vocation. The appearance or face of the types was important because they could determine legibility cum readability of the letters.

Increase in the demand for literature coupled with advancement in printing technology, which was given impetus by socio-political and economic development in the Western world, made it expedient that greater attention be paid to the printing press as a means of communication through which education, information, public enlightenment, propaganda, trade and commerce and entertainment could be enhanced. It became inevitable in this dispensation since the sixteenth century A.D. that typefaces had to created in ways that suited the special communication needs for which the text they were composed. Therefore, type face designers played key roles in the printing presses where they worked with editors or publishers, printing machine operators and type cutters to ensure that the quality of the letters in printed materials are visually satisfactory. In this capacity, they act as typographers by offering expert advice on the desired forms of typefaces and how best they could be applied within the framework of the concept of the materials to be printed.

The place of the typography in the print media will be better appreciated if we consider the numerous types of graphic designs which require typographical consideration during their designing in contemporary time. Among these are posters, sign posts, van display, stadia signs, brochures/catalogues, newspapers, magazines, books, booklets, diaries, show cards, sales literatures, leaflets, handbills, folders as well as calendars. Some of these graphic designs like bill board posters and sign posts, which can be classified as out-door advertisement or publicity materials, are in principle, expected to be perceived from a relatively long distance of about a

hundred metres from the point where they are displayed. This spatial variable with implication for readability and legibility accounts for Ajayi's (2005) insistence that deliberate effort be made to apply legible bold fonts of high points (size) and well contrasting colours of warm and cool hues in writing the copies (captions) of such designs.

We can comprehend the correlation between concepts and typography further by considering the inappropriate use of *Arial Black* – a bold typeface without serif – to design graphics that is conceptually associated with the feminine gender. Such a typeface would have been used successfully in creating designs in which the notion of strength, power, and resilience are expressed. Perhaps attempts to answer the following questions will underscore the point being made in this section of the article:

1. Why does fonts like *Arial Black*, which I have just cited as an example, and others that resembles it in appearance like *Eurostyle Bold, Aharoni* and *Franklin Gothic Heavy* evoke a feeling of ruggedness, bulkiness, solidity and fatness in us, apart from the ones I mentioned above?
2. Why do we experience excitement at the sight of designs like invitation cards that are created with fonts featuring fanciful cursive or scripts characterized by flamboyant swashes?
3. Why are slogans written as punch lines or clinchers in the designs for advertisements and publicity campaign materials done usually with cursive, scripts and italic fonts?
4. Why do we imagine that we see beauty expressed in the forms of fonts like *Algeria, Andalus, Baskerville Old Face* and *Constantia*, all which appear graceful and are aesthetically pleasing to the human sense of sight?
5. Why are children's book, especially those in use in kindergarten and nursery schools printed with bold legible letters?
6. Why are the main or body texts of books printed in capital and lower case letters and not in only capital letters, and finally
7. Why will fonts which are characterised by letters of relatively long stokes for ascenders and descenders not be suitable for application as text letters because they inhibit leading (spacing within lines) in books and other print materials?

An incontestable fact about type faces and typography is that there is a particular milieu in which a typefaces or fonts could be applied, albeit at an abstract level, as design elements to express thoughts, ideas and feelings/concepts like love, fun/collapse, lightening, thunderstorm, icefall, snow, dirt, zigzaggedness and antiquity, which ordinarily require pictorial illustrations or additional textual write up to convey. Beyond this milieu is the capability of fonts to be used to achieve specific goals by individual or groups of people. For instance, the American Association of Psychologists (APA) recommends that contributors to its scholarly journal italise the titles of book/journals in the references list of their

publications. The need to achieve such similar sundry goals informs book publishers' use fonts in italic form to denote words written in vernacular and sometimes to draw attention to quotations, and emphasize or underscore unusual concepts, names of people and places in the main text of a book.

Rationale for Typographic Knowledge for the Graphic Designer

Although many graphic designers are responding to the multiculturalism of today's global society with new works created apparently in unique styles that sometimes challenge the conventional ideas underlying beauty and mankind's modes of visual perception, the relevance of text in designs in which they are combined with images is still recognized. It is this esteem for the textual character of graphic design that compelled Fiell and Fiell (2005) to conclude their essay on graphic design for the twenty-first century with a note which reminds us that "typography as a specialization of graphic has of course, a much longer history." Since letters with which words representing thoughts are written remain a fundamental feature of graphic design, it becomes inevitable that typography be considered as a factor to be reckoned with in the practice of graphic design in the modern universal communication order, which in the opinion of Fiell and Fiell (2005), is challenged by the blurring of boundaries in disciplines; the importance of content; the impact of technology; the desire for emotional connections; the constraint imposed by commercial software; the distrust of commercialism; the increasing quantity and complexity of information; the need for simplification, and the necessity for ethical relevance.

The graphic artist should be equipped with a sound knowledge of typography if he or she is to overcome the eclectic problem posed by the numerous type faces that are presented in a computer. The choice of one or more of these for executing a design is determined, as it has always been in the past, the need to achieve the general objective of ensuring legibility, readability, attention catching and beautification of the graphic channel. Beyond these aesthetic and ethical objectives is the desire of the graphic designer to create a unique or peculiar perspective for perceiving the design's concept. This is done without undue attempts to sacrifice clarity and comprehensibility in the expressionistic design approach of the graphic artist that may border on surrealism, abstractionism or require certain esoteric knowledge for fathoming their meaning.

The graphic artist considers the typographical dimension of his designs with the sensibility of the visual artist who consciously gauges the extent to which his selected fonts harmonise with his other design elements of shapes, lines, texture and colours. He could arouse the feeling of balance, unity, rhythm, radiation or gradation in the perceivers of his design by the ways he applies these design principles in laying out his letters and matching them with the elements of design.

Letters and the Elements of Design

To understand fully the potential of typography as means for actualizing the principles of design in a graphic artwork, one will do well by considering what could be achieved in a graphic design through a properly-articulated interplay of fonts and the elements of design. Such a design that exploits maximally, the functional values of design elements, namely: lines, colours, shapes and textures with which letters could be created as motifs as a component of a graphic artworks, is in no way similar to the ones which are created with fonts that are apparently chosen arbitrarily and portray dissonance with the design's concept.

(a)Line

It is doubtless that we naturally take line, a visual design element with which letters are created for granted, a habit which is traceable to the manner by which the art of letter writing was introduced to us during childhood. It is the reason that makes the inestimable linear qualities of letters remain unappreciated by the untrained graphic designer. Otherwise, he, with the knowledge of typography, acquired as an aspect of graphic art education, would have been familiar with line and its diversity, which could be manipulated cleverly to create letters of various visual qualities that are capable of conveying definite messages or arousing certain emotional feelings in their perceivers in a subliminal manner. Letters delineated with thin, slender or slim lines, unlike the ones created with bold, thick, stout or sturdy lines, can express the idea of weakness, calmness and tenderness.

Variation in the width of sections of roman fonts easily noticeable in the curvy part of letters "O", "R", and "S" and thin diagonal and horizontal lines in "N", "X" T' and "H", which is a common feature of roman typefaces typified by *Times New Roman, Century, Bookman Old Style, Bernhard* and *Budoni* render them graceful and beautiful. Contributing to these aesthetic qualities of such typefaces is the serif added as appendages to them. They are fundamentally different from letters whose entire sections are created with lines of the same width. Type faces which exemplify this category of gothic oriented letters designed without serifs are *Calibri, Arial Black Bold Extended, Spartan, Helvetica, Gill Sans* and *Eurostyle Bold*. Their appearance creates the impression of strength, vigour and ruggedness in their perceiver.

(b) Shapes

Letters as artistic creations could be deemed as non-representational designs. This is because they lack images of specific things and phenomena as they were during the primitive stages of pictograph and ideograph. Thus they are generally perceived as forms attributable to the configuration of lines in a special ways that results in assorted shapes make each letter distinguishable and identifiable from others in its fount. This point becomes clear if we disassemble the roman alphabet. For instance, letter "A" is created

with two diagonal lines that are connected at the top and has a horizontal bar intersecting it somewhere in the middle. In similarly related manner, letter "V" is "A" turned upward. It is also devoid of the horizontal cross bar seen in "A".

Letter "W" is created by juxtaposing two "Vs". "O" is obviously a complete circle while "C" is half of a circle. Letter "S" is made up of two "Cs" that are joined in a way that each of them as components of the letter faces opposite direction. The lower case letters of the roman alphabets such as "b", "d", "p" and "q" comprises half of a circle that is joined to vertical lines. These lines, considered as shafts are drawn either upward or downward, and are descriptively referred to, typographically, as ascenders and descenders respectively.

The shape of letters vis-à-vis those of other images in a graphic design have implications for channels of graphic communication and is therefore, worthy of consideration. Although fonts with the characteristics of script letters like *Edwardian Script ITC, Blackadder ITC, French Script, Kaiti* and *Gabriola* can be featured successfully in graphic channels like greeting and invitation cards, it will be erroneous to incorporate them into posters and signposts designs. The reason for their non-suitability for use in this purpose is that they will not be readable in designs like posters that are expected to be seen form a relatively long distance for which the vortex arising from the superfluous adornment of letters with swashes constitute impediment for legibility, readability and comprehension.

Scripts and cursive letters will certainly not be effective if used as display letters for headers in book, magazines and newspaper designs. However, *Lucida Calligraphy* and *Lucida Handwriting* as well as *Bradley Hand* can be used to design "arms length" graphic communication channels like postage stamps, ATM and identity cards and invitation cards. It should be noted that the more flamboyant or ornate a font appears, the lesser its legibility if it is applied in a channel of graphic communication that is expected to be seen from a distance. Consequently, *Leelawadee, Gill San Ultra Bold, Informal Roman* and *Parchment* should not be deployed as fot for creating such designs.

Bauhaus 93 and *Jokerman* exemplify fonts that that should be applied with caution in creating graphic designs. *Bauhaus 93* has a roundish curvilinear shape and the manner by which its letter "S" tilts at an angle of about 45degrees to the right, renders it visually unaligned and discordant with other letters with which it may appear as words in sentences that are written in capital and lower case letters, as texts for books and other related literatures. The superfluous adornment of *Jokerman* with curvy and jutting lines and dots empowers it to exude a fairy-like surreal feeling, which limits its suitability for use in creating designs for sentimental, emotional laden, light-hearted concepts typified by circus, festivals, carnivals, holidays and folk tales for children. The font is not intended for designing pages of adults' literature, neither is it good for posters on serious issues like those pertaining to natural disasters, political campaigns and advertisement for

the sale of heavy-duty trucks.

It is, therefore, obvious that *Jokerman* cannot be used as display fonts to write the headlines of newspapers as its legibility and readability for this channel of graphic communication is poor. Nevertheless, it could be used reasonably to package and calendar designs on children related concepts.

Perhaps *Old English Text MT* is the best font that can be used convincingly to buttress the view that the shapes perceived in fonts have typographical implication for them. The antique font whose letter shapes are characterised by interwoven straight and curvy lines serves a good purpose when used in the designing of diplomas certificates and religious documents (Osho, 2001).

(c) Letters and Colours

Colour is used basically by the graphic artist to beautify design. It is also used to create contrast among the numerous elements including the letters in a design, portray light and shadow as well as enliven a design. However, the artist's desire to achieve these objectives may backfire if he applies the wrong colours in the design. Compounding this task is the availability of several colours whose value range in terms of tones and tints, the graphic artist could render infinite by mixing them continuously.   Decision on choice of colour(s) to adopt, if the design is based on concept that has been colour-branded already, could become hard to make.   The letters in design may appear obscure if they portrayed in a colour with less contrasting potential due most probably to the fact that the colours used font the letters snd background possess similar chromatic intensity of brightness or dullness. Even when the value of either of the colours is altered to remedy the situation, other problems that could emanate from improper colour application, are hindered readability arising from undue multiple colouring of letters in a word or sentence, and failure to ensure harmony between coloured letters and other design elements such as illustration images and the background.

It is doubtless that colour variation in a design curtails fatigue and monotony in its visual perception as well as beautifies and enhances its attractiveness as a channel of graphic communication. Colours could be used as a tool to emphasise the message conveyed in a design as well as facilitate the perceiver's ability to differentiate between the themes, sub-themes and concepts on which a design based. This could be the case in a poster in which the captions or sub-captions depicting the venue, date and time of an event are written with letters of the same font and size that are painted in different colours by the graphic artist.

In spite of what has been said of the commendable values of colours, their arbitrary use, based, often, on the whims and caprice of the designer or client's fancy, without due consideration of the design's concept, could be counter productive. The "colour riot" which will ensue could defocus the design's message and distort it

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emotional qualities- this being an aspect of design that is of inestimable value in a field such as advertising where the empathic quality of art, which is necessary for persuasion, is required. For although perceivers of graphic artworks are seldom aware of the deliberate intention of designers to evoke emotions in them through their creations, graphic designers do this by subtle means, one of which is by the skillful application of coloured fonts with the potentialities of achieving the feat.

In reminding us that designs modify emotions by colouring them, Randall Teal (2012) posits that a single design can evoke different feelings at different times and in different situations, according to him, mood work through subtle shifts in atmosphere and in people's ability to detect these shifts. It is therefore plausible to state that the message or information, feelings, thoughts and ideas, which can be expressed by applying colours symbolically on the fonts with which certain words are written, may require some tens, hundreds or thousands of word to verbalise.

(d) Letters and Textures

The true worth of letters lies in their legibility and readability. But letters are written with tools and materials which have textures and the vast potentialities to create textures. Free-hand brush lettering naturally exhibits signs of lines left by the tuft of hair at the end letters with the media. Likewise, pencil lettering on a material such as paper placed on a wooden board, cement block or stone will portray the texture of materials' coarse surface. Graphic designers can deliberately create textures with assorted tools on display letters for writing the captions of posters, calendars and other channels of graphic communication that could be seen from a long distance.

 I can still recall the use of a miniature colour spraying equipment referred to as colour synthesizer and some other improvised ones by graphic artists to spray colours in a manner that leaves dotty impressions on letters and the solid background of their designs in the 1970s and 1980s before the advent of the modern computer. Semi-dry brushes and pieces of foam which had some colours were used to create various textures on letters by painting and dabbing, respectively. Some graphic artists have combined lines of different visual characters, dots and colours to design letters with unique typeface, suitable only for use as display letters. Most Western Cowboy films of the 1950s and1960s had very bold captions written with such colourful textured letters. The sign posts heralding arrival to the early northern American towns and the sign boards on the fascia of shops and hotel buildings in these films also had signs written in similar gorgeous letters.

However, today's graphic artist is capable of using the design tools of computer to create assorted designs of infinite number. For instance, it is possible for the designer who is working with CorelDraw and Photoshop typographto add colours of varied tones as enhancement to the textures of the font he has selected for his work. It is easy for the designer to do this if the font is an outline oriented one like *Castellar*, because the

computer can fill the vacant spaces existing between the lines of the letters with desired textures by command.

Often, the designer encounters the problem of contrast that could arise from juxtaposing letters with background created with the same textures, which certainly hinders discernment of the letters and other background elements. Jefkins (2000) considering the overall problems that could be caused by arbitrary use of computer to create layout and letters with typographical implication for designs, observes that computer "tempts them (graphic designers) to use eccentric typography which can damage the legibility of the copywriter's (caption writer's) work."

The Graphic Designer, the Computer and ICT

The graphic designer has access to computer software typographical suites featuring thousands of scalable typefaces such as *Calibri, Arial Black, Berlin Sans FB, Bodoni MT, Broadway, Castellar, David, Elephant, Forte iLucida.* Some of these typefaces are new, reflecting the ability of the typographers who were involved in their designs to respond to the dynamics of contemporary cultures and development in channels of graphic communication. Consequently there included in the software typographical suites, fonts which could be used to portray concepts like those pertaining to antique, oriental, infantile and romance with precision. It is in the light of this that I stated earlier in this article that *Jokerman* can be used as typeface to design materials that is suitable for children. The cover design of love novels could be designed effectively with *Bradley Hand* and *Edwardian Script ITC*. Furthermore, the typographical suites have provision for Arabic, Hebrew, Chinese, Japanese and other alphabets.

The computer makes it possible to exploit the potentialities of fonts in the software typographical suites to scale letters in a manner that could make them appear expanded, elongated, condensed, bold, light and italised and in desired sizes. An expert graphic designer could modify the letters in a font as a means of creating new unique fonts for suit specific design needs. This may be necessary in the designing of a logo or a trademark – tasks that require novelty of motifs and images whether in terms of letters or illustrations that could feature in them. Two creative approaches to achieving this feat typographically is the chipping off of a section of a letter, thereby changing its shape and form, and the introduction of serifs to letter whose font design, originally, had none.

The computer operator with no prior training in graphic design is often a victim of the temptation of the overwhelming number of available fonts in software typographical suites. He ignorantly mixes roman serif fonts with gothic oriented san-serif fonts in creating designs that should, normally, be created with a limited number of related fonts, which preferably belongs to the same family type face. Consequently, he creates designs which lack focus and is confusing due to the multiple-font formatting of letters, words and sentences with assorted fonts of different sizes width, weight and height that make reading and ordering of texts used in

expressing the information in design visuals difficult. Such a mistake hinders the readability of books and other related literatures.

The novice in graphic design could use the computer to display letters words vertically on design formats with relative ease. Such an approach at creating design layout, which does not take the left to right horizontal reading orientation of the Western literary culture, to which users of the Roman alphabet conform into consideration, impedes and stalls readability.

Ample opportunities abound on the Internet for the graphic designer to tap in creating designs. He could crop desired fonts from the several millions of graphic designs that exist on-line which he downloads for this purpose. Web designs on the Internet could, indeed, act as a catalogue of designs, which could be adopted as a guide by the graphic designer in selecting fonts, colours and other design elements to complement his or her work. In this way, a graphic designer can produce a good work by amalgamating what is apparently the best component of existing graphic works, through the application of principles required for the efficient portrayal of the desired design concept. In a related manner, the graphic designer can use cameras to photograph print materials such as catalogues, posters, sales literatures and calendars with letters of fonts which could be adapted creatively for the execution of a new design. Such photographed works, which are eventually downloaded into the computer through a USB will have the letters in them cropped for incorporation into the proposed design.

Art Training for Computer Graphics Designers

The graphic artist, like other visual artists, is a creative person whose vocation pertains to the execution of artworks like posters, handbills, labels, newspapers, magazines, books, cover/jacket designs calendar and advertisement designs, among others. Some graphic artists create signs and artworks with printing methods that involve linoleum and wood blocks or by serigraphic (screen printing) and engraving with metal plates. There also graphic artists who by training work as cartoonists and illustrators for the printing press media, which publish materials like books, newspapers and magazines. The electronic media exemplified by television and Internet use the services of graphic artists too.

In carrying out all the professional tasks, which pertain to the graphic design, the designer encounters, often the challenge of creating works that feature letters aside illustrations – the other component of most graphic artworks. But in no other area of graphic design is the graphic artist's knowledge of letters and lettering challenged than in his production of designs for the printing press. Here his expertise and prowess in typography is called to play in the arduous task of selecting and applying relevant typeface in designing diaries, brochures/catalogues, books, newspapers, magazines and other journals. In fact, the importance of typography is underscored by Lewis and Brinkley (1954), long before the use of computer in modern printing technology, when they state that:

The typographic and lettering designer…is our designer of printing. His job…is

many-sided, for it consists in the preparation of literary and pictorial material for the printer, its arrangement and layout; the design of books, that is of their text and title-pages, their cover and jackets: the design of advertisements; the conception of ideas and schemes for leaflets, folders, booklets, catalogues; the art editorship of magazines and journals. Some typographic designers may design typefaces, be letter scribes and calligraphers.

It could be logically deduced from the above that the graphic artist should be trained not only in the art of drawing, illustrating, print making and photography, but essentially in lettering and typography. The fact that the graphic artist uses computer as a device to execute designs today makes it imperative that he be equipped with typographical knowledge to enable him make appropriate choices of fonts in terms of the size, width and weight of letters. This knowledge will, by extrapolation, enhance his design layout, legibility and readability of the letters, words and texts in the design. These desirable qualities of a good graphic work are the direct impact of the background knowledge of two-dimensional design elements and principles acquired in the course of undergoing training in graphics in visual arts teaching institutions.

However, the current trend in graphic designing, as is the case in Nigeria, is that virtually any one who is computer literate and could apply one of the available software typographical suites, ventures into graphic designing. Such people and others of their kind who have ostensibly undergone some short-term computer graphics and book publishing courses of between six weeks and three months, lack the fundamental theoretical knowledge of design elements and principles that engenders good designs, which can only be acquired as a complement to computer operating skills in formal art learning institutions. For it is a common knowledge that the organisers of the short-term courses are usually not graphic artists and hence, have only little or nothing to teach the neophyte computer operator about typography.

It apposite that I mention at this juncture, the poor state of book publishing programmes in Nigerian educational institutions, which has, inadvertently, impacted negatively on the standard of books published by some local publishing firms. Proper attention has not been paid to the dearth of expert publishers whose training must include book design – an aspect of the profession that requires sound knowledge of typography. Lamenting this existence of quacks in the book printing and publishing industry, Okwilagwe (2001) reveals that book publishing exists merely as a course in the few mass communication and journalism progmammes in the nation's tertiary educational institutions. He felt, and rightly too that the subject ought to be accorded the status of a separate distinct programme, which should have a curriculum that exposes its graduates to the nitty-gritty of the profession.

Notwithstanding Okwilagwe's views on the issue, the participants in the *Seminar on Reducing Cost of Textbooks in Nigeria*, which was organized by Nigeria Educational Research and Development Council (NERDC) at Lagos and Kano on 6th September, 1988 and 13th September, 1988 respectfully, recommended

that efforts should be made to encourage the establishment of printing and publishing courses in some of the nation's polytechnics and universities in order to provide the much needed middle level man-power in the book industry (Okwilagwe, 2001).

The perennial development in today's global information and communication technology can engender changes in computer with unpredictable implication for typography now and in future. The possibility that new software typographical suites featuring new typefaces could be created for use in meeting the needs of the individual and society in future cannot be overlooked. Hence, there must be computer design training schemes in the form short-term workshops and in-service re-training programmes for non-graphic artists and professional graphic artists respectively, that will keep them abreast of innovations on the field of computer, graphic design and typography.

Conclusion

Letters like those of the Roman alphabets play vital roles in the dissemination of information where they are combined with or without illustrations in creating the graphic designs used as channels of graphic of communication. Man has, continually, strived to improve the form of letters and the manner by which they are applied in various ways since the advent of letters in verbal and literary communication. Such efforts, which led to the creation of lower case letters, as a complement of capital letters, reached a high point in the invention the movable types used in printing by Gutenberg in the fifteenth century A.D.

Subsequent development in the printing technology exemplified by the application of computer in typesetting and creation of graphic design visuals during which the device could be effectively used to construct and design new letters forms, makes it imperative that that typography be considered as a serious aspect of design in print media production. However, the tendency has been the creation of graphic designs of poor typographic qualities due their creation by people who lack graphic design training and are hence, incompetent in typography. This trend is not helped by the fact that the prevalent use of computer in today's globalised ICT driven societal socio-economic and political systems, makes inevitable that that majority of people own and operate computers at random.

It would have realized from this chapter, that the potentialities of type faces or fonts cannot be overemphasized. For not only do they imbue letters with the capability of engendering legibility and readability of letters, words and texts of printed matter, they possess latent qualities of which, the evoking of emotional feelings in their perceivers, effusing the impressions like that of beauty on objects with which they are used to advertise, are inclusive. Consequently, adequate knowledge of typography and competency in the subject, which can be facilitated by some level of formal training in graphic design is essential for graphic designers and printers, both of whose works are associated with the planning, selection and application of fonts or typefaces.

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