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# CHAPTER 20

# THE AUTOMATED OFFICE: PERCEPTUAL IMPLICATIONS FOR VISUAL ARTWORK

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## Abstract

*The business office is becoming increasingly mechanized. Since the basic functions of any office is the processing and management of information, the use of machines to carry out these functions is generally referred to as office automation. The use of machines - manual and electronic is exploding in the financial (banking) sectors, telecommunications services, oil industries, etc. To ease the use of these machines, scientists (engineers) and artists (designers) have been urged in this paper to produce machines that office workers can use with ease, convenience and a good human appeal.*

## 1.0   Importance of the Office

The office is being accorded more and more recognition; its roles are being increasingly appreciated and its needs are being given attention. The office is basically an information-processing centre, linking all the various sections within and outside an organisation together. The office worker is as important as any other worker within the manufacturing company. The output of a factory depends more on the efficiency of the office.

Government, industries and scientists/technologists have for a long time recognized the importance of communication flow. Whatever may be the strength of any government, failure is inevitable if adequate attention is not given to the communication system existing within the office. One would observe, rightly, that over the years, the functions of an office has not changed, but the responsibilities and expectations placed on an office have greatly increased. The automated office or the modern office, like the old ones, would still collect information, sort and classify them, record them, process and interpret information; diffuse information, protect the business and safeguard the assets of the business as observed by Michael in 1987. These factors place greater challenge on the office by demanding alarming quantities of incredible and effective information. If the office fails to meet this challenge, it will not only be disastrous for the office, but all the facets of life.

The story of the office machines is closely tied to the story of the typewriter. Since the primary function of the office is management of information, the first personnel that was trained to serve this role was in the art of penmanship. Recording was done in laborious handwriting first. At a time when the demand for speedwriting could no longer be satisfied by human hands, Henry Mill came up with an idea of a printing machine in 1714 in preparation for the industrial era. 'Though Vankanus in Vonna, Louise Jacquet, a Swiss, Pellegrimo Turidi Castehuovo of Italy, etc. each claimed to be the inventor of the typewriter,

the first commercially viable typewriter did not come out till 1873 by Christopher Sholes Since the invention of the first set of typewriters the typewriter has been the leading office machine with many modifications. Thanks to the designers. Through the years (twentietl century) IBM developed the first electric typewriter to further increase the speed oi production. As these machines are innovated, human factor should not be forgotten. Hence, aesthetic implications are discussed later in this paper.

Typewriters are not the only office machines undergoing changes. In existence and undergoing changes also have been labelling-pasting machines, telex machines, facsimile (fax) machines, letter opening machines, folding machines, franking machines, accounting machines, shredding machines, Photostatting machines, cyclostyling machines, and very many others.

## 2.0    The Automated Office

The latest addition to the office machines has been the invention and introduction of the computer. This introduction has completely revolutionized and automated the office world. This came from increased demand for information necessitated by automatic preparation and dissemination of information. It is now known that computers can store information (with the use of data bank, database) until it is no longer needed.

Today's office is experiencing a tremendous change in outlook and methods of operations. Thanks to the developments in technology and the application of such developments to business allowing a great increase in speed, efficiency and economy. Automatic machines and equipment seem to accomplish routine tasks so efficiently and so fast with the result that we are at times led to ignore the people (once again the human convenience) who operate from behind the scenes to make automation possible.

The impact of automation on work can be seen in today's office equipment. These comprise machines, systems and furniture essential to the working of the modern office. Automation of office work has come about as a result of the need for greater speed and accuracy, and the characteristic integration of visual picture of modern office efficiency is to this paper, the successful use of these machines and equipment. These machines are grouped or linked to achieve a higher value of usefulness by people.

## 2.1    Organizational Implications of the Use of Computers and Office Automation

Two schools of thought have been identified with reference to the impact of computers on the employment pattern. Many computing experts belong to the first group and they believe that machines can make simple decisions that are reliable, accurate, fast, unprejudiced, and so they are desirable for many functions in our offices which presently are manned by unskilled hands. They put it bluntly in these words:
...people who are now getting paid for what amounts to little more than doing simple 'conditioned responses' will inevitably be put out of work by machines."

The second group of professionals which comprises people in labour unions, economists and others believe that the new jobs that computers and office automation have created and the resultant new services that are now produced for human consumption are more than enough to compensate for the job losses. In their opinion, the picture could be

seen from mere job displacement. The two views are not completely contradictory of each other. The difference has been on where the stress is put. Collin in 1982 remarked that what worries the computer and automation experts are that at the end of the day they will find themselves in much the same predicament as the atomic scientist did. He opined that while the atomic scientist worried about the wars and destruction of lives, property and possibly the whole human race, the computer scientist worry about the vast unemployment that will befall a particular class of. But this paper also worries about the human aesthetics thereby restoring environmental harmony.

## 3.0     Nigeria's Level of Technological Development

Opaleye in 1984 described technological development as a nation's ability to provide the needs of food, shelter, clothing, health, education and employment for its citizens, and produce the services, consumer goods, raw materials for industries and tools which the nation needs.

As far back as 1925, it was recommended that formal education in Nigeria should have technical and vocational bias. The Ashby Commission of 1960 re-echoed the same issue stressing that education should teach new technology since society wanted it. However, the technological and social development of a nation help the education of that country. It is obvious that technical education had a slow start and developed less quickly than other forms of education in Nigeria, and this has continued through the years as only about 15% of the Gross National Product (GNP) is allowed to research and development. It is even disheartening to note that Nigeria does not spend as much (Umeh, 1989), and multi-national companies who could have done much on research rather prefer to use their home base for carrying out such research thereby slowing down the pace of technological transfer. Still worthy of note is the opinion that investors wanted a change in the attitude of Nigerians towards home-made technologies as an incentive to create or adapt new technologies.

However, in recent times emphasis is shifting slowly towards science and technology because there is now the desire to move from agrarian to industrial or technological revolution. Tin extraction in Jos, coal mining in Enugu, the oil prospecting and the vehicle assembly plants - all need expert hands and machinery. These industries rely heavily on technology. Other sectors also include the banking and the telecommunications industries. Examples of the services are the electronic funds transfer system (EFTS). This provides fast, dynamic financial exchange procedures that allow high volume, high speed transaction processing in deposit, debt, credit and information services; the Interbank Networks; Unified Cheque Clearing System (UCCS) etc. but lacks the serene aesthetic and cultural satisfaction which ironically was the motive for the inventions. The visual aspect needs a close look.

## 4.0     Visual Perceptions and Artistic Views

Perception as defined by the Oxford Dictionary is a process by which we become aware of changes through the senses of sight, hearing etc. Arahein also sees it in 1954 as the effective performance of both visual and mental process. Idiong in 1996 concluded that perception is a visual thinking. Since the private and public offices today rely heavily on technology, office machines are greatly in common use. The banking, telecommunications, the oil industries, the classroom etc. make good use of machines. For machines e.g.

computers, typewriters, etc. to offer the greatest in effective productivity, engineers (scientists) must research into the mechanism while artists (designers) must also research into the body design to produce a human inclined technology. Since technologists and machine operators spend long hours on the machines, the designs of such machines should include convenience, comfort, ease of touch and operation and above all the general human approach.

## 5.0 Summary and Conclusion

There is evolution in the design industry of machine. Examples are the typewriters that were produced in the 19th century - awkward looking, but this has evolved over the years to the present electronic typewriters, the computer or generally, the keyboard. Today's keyboard, for example, is comparatively comfortable, but finger accidents still occur occasionally. The Photostatting and duplicating machines are yet to be revolutionized in outlook as they are still so clumsy and heavy. They rather should be designed with soft touch, feminine curvilinear lines to reflect human feelings since the designs are made for human use. The implications here are that artists need to create beauty and brain in the mind of the machine operator for human comfort and satisfaction.

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