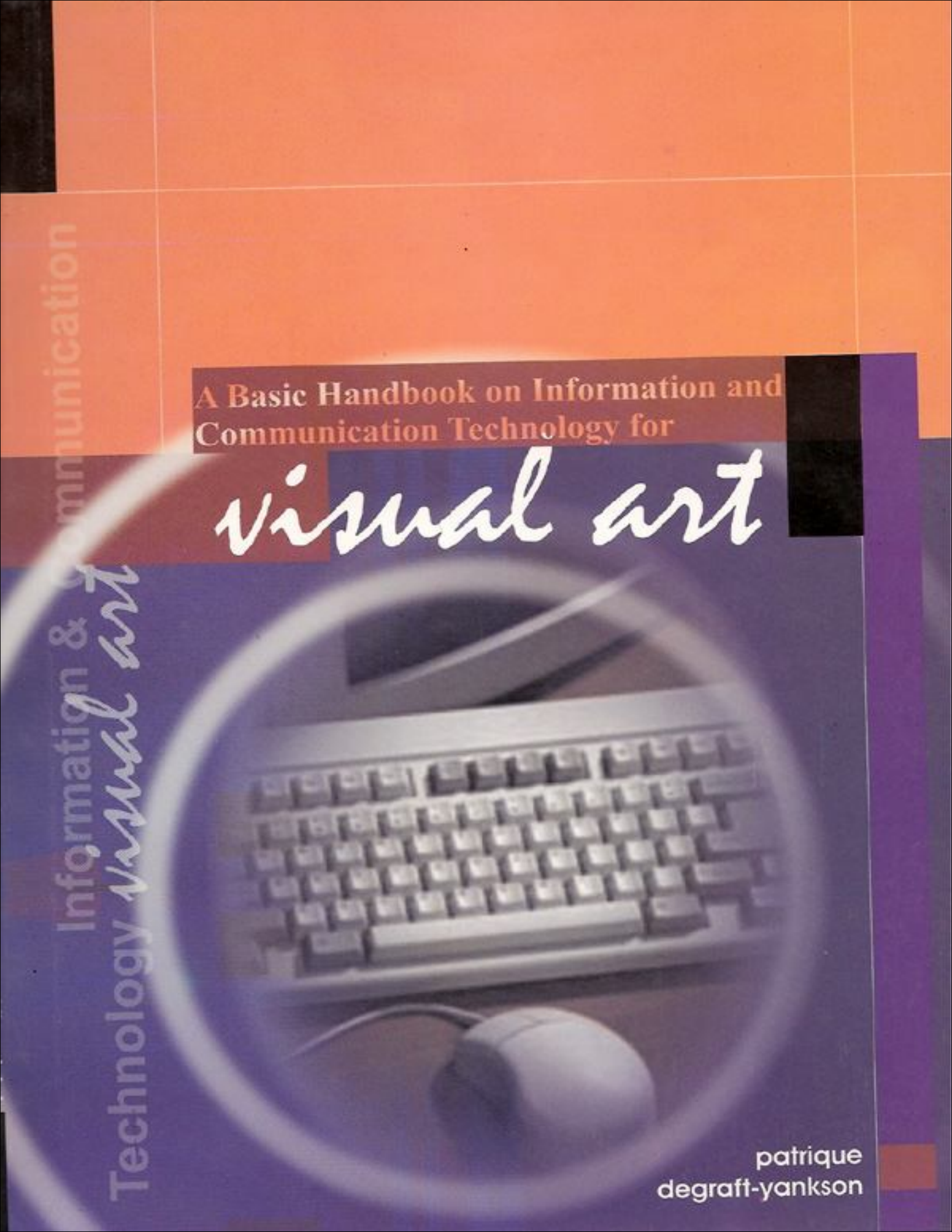
A Basic Handbook on Information and Communication Technology for visual art



Information & Communication Technology for visual art

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With the rapid increase in the acceptability of the computer as a tool in many professional practices, ICT procedures are also increasingly featuring in artistic processes. The amount of technology at the disposal of art production today was in some few years back identifiable only with disciplines like informatics, industrial working practices, robotics and research into artificial intelligence. All the basic creative decisions in art can now be broken down into individual steps and controlled in the computer as digital procedures. Graphic designers and other *visual problem solving* professionals now routinely use computer-based image-editing tools in their work. This is not all. Attempts are being made to apply learning and inference techniques from artificial intelligence techniques to graphical editors in order to provide intelligent assistance to design professionals (Lieberman, 2004).

In Ghana, artistic practices have witnessed a rapid development of new multi-disciplinary communications technologies in recent times, where digital channels interconnect with traditional media. Efforts are being made to exploit both old and new, and this requires extensive visual, verbal and technical skills if one is to succeed. It is becoming obvious each passing day that the new communication culture will be led by artists with ardour, intelligence and the expertise to respond to constantly evolving needs. This indeed calls to question the idea of autonomous artistic personality and demands the reconsideration of the artist's position in our modern society.

The magnitude of the art teacher's responsibility in providing these evolving needs lies within the fact that nowhere is the process of art creation more critical than in teaching beginning artists. This is because the effectiveness of acquiring good fundamental skills is crucial to the success of the student. As far as future artists are concerned, the role of the art educator in rendering students functional in the face of this technological bliss is crucial.

The responsibility of the art educator is therefore, to make use of the new technologies to enhance educational programmes or to redefine art education programmes so that students can be up-to-date in the creation of art as well as the use of information.

Besides, the use of ICT in appropriate contexts in art education can add value to teaching and learning of art, by enhancing the effectiveness of learning, and by adding a new dimension to learning that was not previously available.

This handbook, apart from introducing students to the basic uses of the computer in art and design processes, is also intended to prompt art educators in Ghanaian secondary schools to define a framework for the appropriate and effective use of ICT in their teaching and learning.

TO TEACHERS AND STUDENTS

About this Handbook

This handbook contains information and practical instructions on the use of the computer for basic activities in visual art. It provides a set of systematic guidelines for teachers and learners of art as well as all those who concern themselves with creation of images/graphics with the computer. This is presented in the form of "*how-to instructions*" on *the basic usage* of two graphic software - Corel Draw and Adobe Photoshop. The tasks for this handbook therefore centre on performance of basic artistic activities by the use of the computer and the software mentioned above.

Purpose of this Handbook

This handbook is guided by the observation that visual art students are missing out in the current ICT programmes that are run in Ghanaian Senior Secondary Schools. It provides a framework for thinking about ICT also as a tool in the creative process. It is designed primarily to demonstrate how certain basic artistic activities can be performed with the computer. However, my hope is that the activities in this handbook would motivate teachers and learners of visual art to embrace ICT and consider it as one tool which can open many doors in their artistic pursuits. For art educators with little or no experience in computing, and without the time to learn computing from the scratch, this handbook can provide a shortcut to otherwise long process. This handbook is not intended to serve as an exhaustive instructional guide in Corel Draw and Photoshop. It only touches on the aspects of the software which are relevant to this book.

The need for this Handbook

The handbook seeks to draw attention to the computer as a tool for learning and the creation of art in Ghanaian senior Secondary Schools. This has been necessitated by the observation that information technology as they are pursued in Ghanaian secondary schools today concerns itself mainly with word processing, and therefore makes very little impact on the teaching and learning of Visual Art. Activities are based on the fact that

constant practice and understanding of fundamentals enhance the smooth teaching and learning of art. For example beginners of art using paint, clay or pencil will become excited by the materials and be motivated to explore further. In much the same way, using the computer to learn about the elements and principles of design - creating, manipulating, moving them and so on, - may appear like playing. But the underling factor is that, this basic experience of involvement with little regard for result can be an educative one. Because the computer makes it possible for learners to engage in many creative activities such as creating lines, shapes, mixing colours, very quickly and at a very little cost, it offers much broader opportunity for experimentation and in-depth practice.

It is with such an understanding that I consider the activities outlined in this handbook as capable of enhancing the teaching and learning of art. Insight gained from the basic use of computers for artistic expressions will put teachers and learners in a better position to appreciate the usefulness of the computer and for that matter information technology in art education.

What follows in this section is a justification to the fact that information technology in schools can mean more than learning how to type with the computer.

Objective of this Activities

The activities in this handbook aim at motivating students to use the computer to explore the effects of some of the basic elements and principles of design. Since it is much faster to use the computer for the creation of lines, shapes, colours and textures, the activities in this handbook would promote spontaneity in students' creative thinking.

The activities are hinged on these three components of Art Education:

Creative Expression: Developing understanding and familiarity with different medium and making aesthetic choices by means of actually making art.

Aesthetic: The philosophy concerning the nature of beauty. A belief that art can have intrinsic beauty and value that can be communicated to the viewer without words.

Art Criticism: Analysis and judgement of the nature and value of different art forms (Hubard 1994).

This handbook therefore aims at introducing the computer to students as a tool for creating art. This would lead students to explore further the area of beauty as they utilize the concepts of line, shape, texture and colour, thus presenting ideas visually. From this exploration, students would be able to appreciate what they create with the computer as well as what others do. In

other words, they would begin to see the computer not only as a machine that always comes up with similar solution to problems (as when it is being used solely for word processing), but also that which can promote divergent thinking.

Tools

The major tool for the activities in this handbook is the Personal Computer (PC), which is the most popular type of computer in Ghana. Besides PCs are compatible to a wide range of software - from high tech 3D simulation programs to integrated word processors, encyclopedias, etc. Personal computers, which are also known as IBM compatible computers are easy to use and are found in all the schools with ICT centres.

However, that is not to say that the Apple Macintosh cannot be used. On the contrary, Macintosh is many times considered a better piece of equipment for such applications as graphic arts. The only drawback to the Macintosh in our particular instance is the lack of some of the more popular and less expensive software that is usually released for PCs, and of course the fact that it is more expensive and therefore not available in most establishments.

Since the computer by itself cannot be a tool for art without the appropriate software, two software programs have been selected for this book. These are Corel Draw for drawing and Adobe Photoshop for painting. These programs have been chosen because they are the most accessible of the drawing and painting programs. At the outset, however, it is necessary to elaborate a bit about the programs and their tools.

Corel Draw

This is a vector-based drawing program that makes it easy to create professional artwork from simple logos to intricate technical illustrations. It provides tools and effects that make it possible to work efficiently to produce high-quality graphics.

Corel Draw drawings are vector based because objects drawn are defined mathematically as a series of points joined by lines. Graphical elements in a vector file are called *objects*. Each object is a self-contained entity, with properties such as colour, shape, outline, size, and position on the screen included in its definition.

Because each object is a self-contained entity, it is also possible to move and change its properties freely while maintaining its original clarity and crispness without affecting other objects in the drawing. These characteristics make vector-based applications ideal for illustrations, in which the design process often requires individual objects to be created and manipulated. Vector-based drawings are resolution independent. This means that they appear at the maximum resolution of the output device, such as printer or monitor. As a result, the image quality of a drawing is a higher quality resolution.