CHAPTER 15:
THE APPLICATION OF CORELDRAW SOFTWARE IN THE CREATION OF SIMPLE AND COMPLEX GRAPHIC DESIGNS

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Introduction
Ambrose and Harris (2009) Graphic design is a creative visual arts discipline that encompasses many areas. It may include art direction, typography, page layout, information technology and other creative aspects. This variety means that there is a fragmented landscape for design practice within which designers may specialise and focus. In relation to the professional development of graphic design field, Davis (2015) commented that due to the roots of graphic design, graphic designers are trained primarily to master technical production skills in order to create visually appealing works for effective communication. However, practitioners are urged to develop new aspects or criteria to reflect the more recent status of graphic design as a profession due to the development of the information age and the growth of the knowledge economy.

What Coreldraw Application Stands for
Akron-summit (2019) defines CorelDraw as a vector graphics editing software developed by Corel Corporation. It is used for creating and editing digital illustrations, logos, brochures, and other design projects. The program offers many features and special effects that allow users to create designs to fit many different needs. CorelDraw is a powerful software known for its user-friendly interface and comprehensive design tools. This

research examines its contribution to design creation, from simple illustrations and logos to complex graphics like 3D illustrations, advanced typography, and intricate patterns.

There are some artistic tools in the features of CorelDraw software, which will help design very complex and eye-catching drawings with different types of logical ideas. CorelDraw offers different types of brushes that helps create a detailed image with a realistic look, and that image can easily convey its real purpose. CorelDraw also have a Layer system, just like Illustrator and Photoshop software, which helps work with different layers of an image without damaging the original individual layer.

Coreldraw Features and Tools

E-Iceblue (2023) analyzed the key features and tools in CorelDraw that enable designers to create a wide range of designs. These include vector editing, precision tools, customizable brushes, node editing, and the ability to handle various file formats, among others. The following tools are available in the drop-down button when you open CorelDraw

Pick Tool	The Pick Tool is a selection tool that operates similar to Photoshop's Move Tool in terms of functionality. In the bottom right corner of the tool, you will find a variety of options for freehand picking as well as free transformation. With these options, you can resize the image, so it becomes wider and narrower or even create a mirror image with your mouse.
Shape Tool (F10)	This tool will provide nodes and handles on the image, shape, or text that has been selected. After the nodes have been selected, the portion of the object that was chosen can then be curved into various textures such as a smudge, smear, twirl, and so on.
Crop Tool (Z)	As its name suggests, this tool will assist in cropping the image, shape, or text that has been selected. You will also be able to erase parts of the picture and cut it like a knife (that is, divide the shape into various slices that can be edited separately) (using Eraser).
Zoom Tool	The Zoom Tool allows zoom-in on any specific part of the shape or text currently being created or edited. This enables the designer to address any inconsistencies and make the necessary adjustments.
Freehand Tool (F5)	This tool, the Freehand Tool, is where most of the magic is created. Thanks to its diverse drawing capabilities, this tool enables you to create and sketch any design you can imagine. Therefore, the graphic design process begins with the utilization of this tool, which plays an important part.

Fig 1: A table of coreldraw work tools. Source: CorelDraw Screenshot (2019)

Smart Fill Tool	Creates objects from overlapping areas and applies a fill to those areas.
Rectangle Tool (F6)	Draws rectangles and squares. Squares are created by using the Control key while drawing.
Ellipse Tool (F7)	Draws ellipses and circles. Circles are created by holding down the Control key as you draw.
Polygon Tool (Y)	A collection of objects which you can add to your drawing. They include such things as arrows, stars, talk bubbles, and flow chart symbols.
Text Tool (F8)	Adds either Artistic or Paragraph text to your drawing.
Parallel Dimension Tool	The Dimension tool creates size labels. The sizes are automatically calculated and represent the size of the objects in CorelDRAW, it is not possible to enter sizes yourself. Different tools exist for horizontal, vertical and diagonal lines, you can choose them from the property bar.
Straight Line Connector Tool	Combining two objects with a line.
Drop Shadow Tool	Apply shadows behind or below objects. Access contour, blend, distort, envelope and extrude tools.
Transparency Tool	Partially reveal image areas underneath the object. Apply a transparent effect to an object.
Eyedropper Tool	The Eyedropper Tool allows you to select a color within an object, especially a bitmap, and allows you to apply that color to another object. You can also capture the color for a customized palette.
Interactive Fill Tool (G)	Allows you to apply Fountain fills (gradients) using the mouse.
Outline Pen Tool (F12)	Sets the outline style of an object or a line. This includes the line type, ends, color, and weight. The flyout gives quick access to some changes.
Edit Fill Tool	Change properties of current fill.

Fig 2: A table of CorelDraw work tools with descriptions of their functions.
Source: CorelDraw Screenshot (2019)

Simple Design Creation

The research explores the ease with which CorelDraw facilitates the creation of simple designs. It delves into the software's capabilities in generating basic shapes, logos, banners, and posters, discussing how designers leverage its tools for quick and efficient outputs.

Complex Design Creation

CorelDraw's ability to handle intricate designs is examined in this section. It explores it's role in designing complex illustrations, info graphics, product packaging, and marketing materials, showcasing how designers employ advanced techniques to achieve professional-grade outputs.

Workflow Efficiency

The research evaluates the software's impact on design workflow efficiency. It analyzes the integration of CorelDraw with other design software and hardware, assessing how designers can optimize their processes to save time and effort.

The Use of Coreldraw In 3D Illustrations

CorelDraw is primarily a 2D vector graphics software, and it may not be the most suitable tool for creating complex 3D illustrations directly. However, CorelDraw can be used in combination with other 3D software to enhance your 3D illustrations. For example, you can design 2D elements in CorelDraw and import them into 3D modelling software like Blender or 3ds Max to create a more detailed 3D scene.

If one is specifically looking for a software that specializes in 3D illustrations, one may want to consider using dedicated 3D modelling and rendering software like Blender, Autodesk Maya, or Cinema 4D. These programs offer more advanced 3D capabilities and tools to create intricate 3D illustrations.

Creating Advanced Typography and Patterns using Coreldraw

Creating advanced typography and patterns in CorelDraw can be an exciting creative process. To get started, one can explore various font options and customize their appearance using CorelDraw's typography tools. Additionally, one can create intricate patterns by combining shapes, lines, and colours.

Versatility across Industries

CorelDraw's adaptability across various industries is explored from graphic design and advertising to fashion and architecture, this research highlights real-world examples of how the software addresses unique challenges in different sectors. CorelDraw's usability is well-regarded across various design industries due to its user-friendly interface and intuitive tools. Design professionals in graphic design, illustration, web design, and print media find it easy to create and manipulate vector graphics, allowing them to bring their creative visions to life efficiently. Its layout capabilities make it suitable for creating designs across different formats, such as posters, brochures, and websites. Additionally, its extensive range of features and tools, including vector editing, typography, colour management, and photo editing, make it adaptable to different design projects. Its compatibility with industry-standard file formats ensures smooth collaboration and seamless integration into existing design workflows. Its user-friendliness and versatility contribute to its widespread usability and popularity among design professionals in various industries.

Limitations and Challenges of Working with CorelDraw

No software is without its limitations. This section discusses the challenges faced by designers when using CorelDraw, such as system requirements, compatibility issues, and the learning curve

for beginners. CorelDraw, a vector graphics editor, had some limitations and challenges, which might still apply in today's design software

- ❖ **Complexity:** Corel DRAW can be quite complex for beginners due to its extensive features and tools. Learning to use it proficiently may require time and practice.
- ❖ **Resource-intensive:** Working with large and complex projects can sometimes lead to high CPU and memory usage, which may affect system performance.
- ❖ **Compatibility:** Compatibility issues may arise when transferring files between different versions of CorelDraw or other design software.
- ❖ **Learning curve:** Mastering all the functionalities and features of CorelDraw may take some time and effort, especially for users new to graphic design software.
- ❖ **Limited 3D capabilities:** While CorelDraw is excellent for 2Dgraphics, it may not offer the same level of 3D design capabilities as specialized 3D modelling software.
- ❖ **Text handling:** CorelDraw's text handling features might not be as advanced as some other dedicated typography software.
- ❖ **Lack of real-time collaboration:** CorelDraw might not have seamless real-time collaboration features compared to some cloud-based design tools.
- ❖ **Mac support**: Historically, CorelDraw has been primarily available for Windows, and Mac users may have limited access or face compatibility challenges.

Comparison with some other Design Applications

To provide a comprehensive overview, this research compares CorelDraw with other design software on the market, showcasing its strengths and weaknesses relative to its competitors.

Thomas 2023 in his review stated that CorelDraw is an excellent vector editing, illustration, and page layout application that provides all the capabilities a professional graphic or layout designer might need. Digital artists will love the LiveSketch feature, excellent stylus/touchscreen support, and the AI-assisted PowerTRACE tool for converting pixel images into vectors. It's also perfectly accessible to new users who have never experimented with vector editing before, thanks to its built-in introductions and helpful hints.

Adobe illustrator, for instance, is widely used in professional settings and integrates well with other Adobe Creative Suite products. Inkscape is an open-source alternative with a strong community of users and developers. Affinity Designer is known for its robust features and: more affordable one-time purchase model. It's essential to evaluate factors like functionality, user interface, compatibility, and pricing to find the software that best suits your design workflow.

Future Developments
The research looks into potential future developments for CorelDraw, considering the advancements in technology and design trends, and how the software might continue to evolve to meet the demands of the ever-changing design landscape.

Enhanced Al Integration: CorelDraw could incorporate more advanced Al capabilities, such as automated design suggestions, smart object recognition, and intelligent image tracing.

Cloud Collaboration: Improving cloud integration to facilitate seamless collaboration and file sharing among multiple users in real time.

Augmented Reality/Virtual Reality (AR/VR) Integration: Integration of AR/VR technologies to enable designers to visualize and interact with their creations in immersive ways.

Improved Performance and Stability: Continued efforts to optimize software performance and address potential bugs to enhance user experience.

Expanded Cross-platform Compatibility: Expanding compatibility to support various operating systems and devices, such as tablets and smart phones.

New Tools and Features: Introducing innovative design tools and features to stay competitive and cater to evolving design needs.

Integration with Emerging Technologies: Integration with new technologies like 3D printing and Internet of Things (loT) design.

Accessibility and Inclusivity: Focusing on making the software more accessible and inclusive for users with different abilities and needs.

Machine Learning and Pattern Recognition: Implementing machine learning algorithms to analyze user behaviour and provide personalized design suggestions.

Enhancements: Continuously refining the user interface and workflows to make them more intuitive and efficient.

Finally, these points are speculative and based on general trends in the design industry. For up-to-date information, it is best to check the official CorelDraw website or announcements from Corel Corporation.

Summary

In conclusion, this research highlights the significance of CorelDraw in the creation of both simple and complex designs using computers. It underscores the software's versatility, user-friendliness, and potential for continued growth, making it an invaluable tool for designers across various industries.

The significance of CorelDraw in the creation of designs lies in its versatile and powerful tools that enable designers to produce high-quality graphics and illustrations. Its user-friendly interface allows for easy manipulation of shapes, text, and images, making it accessible to both beginners and experienced designers.

CorelDraw's features, such as vector editing, layout tools, and various effects, contribute to efficient design workflows and the ability to create complex and professional designs. Additionally, the software's compatibility with different file formats makes it suitable for various industries and design projects. Overall, CorelDraw plays a crucial role in enhancing the design process and enabling designers to bring their creative visions to life effectively.

Questions

What function does shape tool, ellipse tool and interactive fill tools do?

What are CorelDraw's industrial capabilities

What are the limitations and challenges of working with CorelDraw?

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