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ATTENTION WEB DEVELOPERS! You NEED to know about accessibility!

What is accessibility?

In the context of websites, it's more than, "Oh, so if you have access to the internet, then the website is accessible." Although Oxford defines accessibility as "the quality of being able to be reached or entered," according to the Government of Canada, accessibility is defined in Bill C-81, An Act to ensure a barrier-free Canada (the Accessible Canada Act).

A summary of this Act can be found [here](). Minister of Status of Women gives her definition of accessibility in an Employment and Social Development Canada video as, "Everyone who wants to participate has the opportunity and access to do so in the fullest way" while the Minister of Families, Children and Social Development states accessibility as, "It's a country where everyone feels fully inclusive and where all possibilities are within reach by all."

What does this mean for web developers?

Consider an audience who may:
- be partially to 100% visually impaired,
- need software to operate their computer by voice-navigation, and/or
- be colour-blind,

can they access your website and the information on it?

To help answer this question, there is the W3C Web Accessibility Initiative (WAI). WAI is a lead on promoting a high degree of web usability for people with disabilities. This initiative published the Web Content Accessibility Guidelines (WCAG) which is "regarded as the

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international standard for web accessibility". Pablo Stanley of UX Collective summarizes the core concepts of accessibility in this fun, encouraging, and informative article titled "*Designing for accessibility is not that hard: Seven easy-to-implement guidelines to design a more accessible web*". These are good starting points to get informed about what can be done about website and their accessibility.

Recommendations for Website Accessibility

Colour Contrast and Text size

Older individuals (or people who have visual impairments) cannot see as well and may have difficulty reading. Executing elaborate details such as moving images or scrolling text,

leaving white space, and using small fonts can be appealing for designers but can be harder for some people's eyes. A picture containing outdoor, building, red, flag
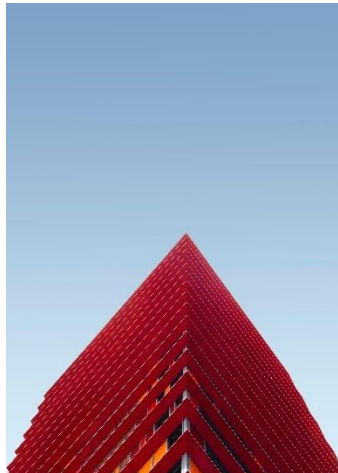
Description automatically generated In Pharmacy, prescription drug font sizes on labels have specific requirements. This is the same for website content. They cannot be outside a specified combination of colour and size.

The Accessibility for Manitobans Act references these standards for Information and Communications.

Design Focus States

Designers like to focus a lot on hover states and what happens when people move/hover with the mouse. Focus states in terms of accessibility are people who use the keyboard to navigate websites.

Clicking the tab will select certain places on the

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webpage. Some designers don't bother designing it or telling the developers that they should implement it. This is easily forgotten by the developers because it's not usually used by them.

Form Labels

There are many trendy designs you can find with forms. They can be very minimalistic by having text above the form field.


Other forms, however, only use the placeholder text inside the label to specify what this label is for. This can cause problems for accessibility because a screen reader cannot read placeholder text. Therefore, try to add text outside of form fields that a screen reader can read.

Alt tags for images

There are codes that describe what the image is within the webpage markup. This is more for the development process rather than the design.
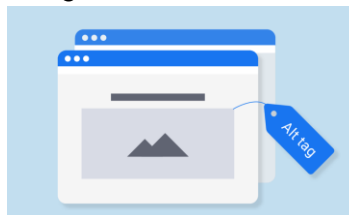
When you hand over your site to a client, as the developer, you must be able to explain what the alt tags are when they are making a new blog post or updating content in their website.

Develop Correctly

Some of the development process has to do with setting up the correct markup. Use semantic tags to differentiate where the navigation, articles, and footer are. Not every website you design will be legal proof. Shedding light on the recent lawsuits and being informed about accessibility and ways to make the web content accessible are positive steps in the direction of giving more people opportunity and access to participate in the fullest way.

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Look forward to meeting people on campus!

IBIT

BIT Term 1

Fall 2021 BBA Executive Team

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Game Development Course Red River College Information Session

Kyle Geske, a lead instructor of the new Game Development Diploma Program being offered at Red River College Polytech. Prior to joining the game development program, he taught courses in the BIT and iBIT programs of the ACE department. The first intake of the Game Development Program was in the fall of this year. 2021 Fall Term.

There are two streams of Game Development that students can choose from. There is the programming stream and the Art stream. The programming half of the program, focues on the coding while the Art half focuses on 3D design. This emulates what is seen in the industry where coders and artists come together to build a game. Red River College Polytechnic is one of the few programs in Canada that does this kind of collaborative study. The program is composed to of 4 academic terms and 12 weeks work co-op. Students graduate from the program with a portfolio to showcase their work, as well as, a Video Game Development Diploma.

The main engine that the program uses is EPIC's Unreal Engine. The internal visual scripting language used for the engine is called Blueprint. For those more concerned about the performance/turning of games, then C++ will be used.

The documentation learned in the program replicates how documentation is practiced. There is a class in the program called "Modern Tech in Games" that has students pick technology used in the gaming industry. Research technology, produce a demo using this technology and finally present this technology to other studies. Researching and producing demos using the technology. Giving other students to learn different software used in the industry.

The portfolio requirement is used to demonstrate that you have current programming skills like the ones learned through BIT. They also require a resume which gives the admissions committee an idea of the educational background and work experience of the student.

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What should a portfolio look like?

Examples include: explanation and examples of source code the student is proud of, examples of well-documented code, a technical blog or video tutorial, or outstanding assignments.

A sufficient requirement to enter the program would be two terms of the BIT program or two terms of Computer Science.

Art courses

Content creation includes hand modeling of assets and procedural generation of assets. Describing more of the process of creating something. Classes like motion and animation/visual development focus on the polishing aspects like level design.

Art portfolio requirements

To get into the Art Stream of the Game Development program, Kyle recommends to take the one-year certificate program Digital Media Design offered at Red River College Polytechnic.

Shared courses between game development specialties (Artists and Programmers)

Program course Game Studio , pair up students of the Programming and Art specialties. In this course, students go through the whole process of builing games together. The game builing process can include game jams – where students have a limited time to create

something, or it can be a long form of development. Narrative Design goes into building stories behind the game and how the game mechanics/art can serve that story. Game Business Management will help grow our industry in Winnipeg. Aiming to give students enough information to build their own game studios locally.

The Game Development program will be held in the new Downtown campus where the classroom studio has 20 or more workstations with curved monitors. There is also Motion Capture Studio where students can act out movements and put them into a 3D model. This will be available to students in the 2022 Fall intake. The Application of the next intake is May 2022. Applications need to be submitted first prior to portfolio submissions. Once an application is

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revied, the students will be contacted to submit their portfolio. Contact tlepp@rrc.ca or kgeske@rrc.ca for further questions.

How does Unreal differ from Unity?

Unity and Unreal are the two game engines for right game development right now. The biggest different between the two is how much is included in the engine. Unity is a very full featured system, but users need to build what they need. C++ is more of a demand in the industry because there is a need for high-level optimizations.

What's a big goal for the game development program?

Kyles vision is help move the Winnipeg game development industry forward in Winnipeg. By pushing graduates into the industry where they can tackle on the art, technical and business sides of game studios, this can help move the industry towards that vision.

Is the program more geared towards node-based coding with unreal engine or is there more script-based coding?

First term of the program will focus on node-based coding and then it'll go deep into script-based coding. Diving into an engine can be overwhelming and can do so much. They didn't want students taking on a lot too soon.

How deep does the program get with artificial intelligence?

The AI world in incredibly large but the artificial intelligence that happens in gameplay is more about making the enemy mob to be fun to play with. It can be one of those things that can be explored in during the modern technology aspect of the program.

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What is Kyle's experience prior to being a Red River College instructor?

Computer science at the University of Manitoba was the beginning of Kyle's journey. He did Full Stack Development and designed CPU's, motherboards, firmware, and assembly language "stuff", the working his way through the abstraction train to web development/mobile design. His journey lead him to Red River College Polytechnic

Will students get to learn how to host their game on a cloud server?

Hosting and the whole idea of building/deploying an application is something that will be covered in the later terms. Virtualization and the remote work idea are getting more important in the industry. The Unreal game engine provides the infrastructure for the networking/juggling of state that's required. It is already developed for users as part of the engine.

For more information, you can catch Kyle's presentation from November 29, 2021 or read more on the program here
https://www.rrc.ca/creativearts/game-development-programming/