



UCT KNOWLEDGE CO-OP



Department of Information Systems

Systems Analysis (INF3011F)

Business Case:

Whizz ICT Center

Team: IT4U

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The UCT Knowledge Co-op facilitated this collaborative project with WHIZZ ICT.

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Part 1 Business case and project outcomes

1. Introduction and Background

Khayelitsha is the 6th largest township in South Africa (2011 census) with nearly 400,000 inhabitants and they lack technology to benefit the community with only 9 public computer facilities, often local libraries that require library cards to access. Khayelitsha is known to be the one of the most dangerous and under developed townships in South Africa. Residences are not exposed to technology and computers. Developers do not dare think of Khayelitsha even though it is in one of the biggest cities in Africa. Thembinkosi is currently providing services to community such as printing, computer training, electronic equipment repair, photocopying, internet connectivity, business cards and countless more services related to technology.

Thembinkosi Qondela is the owner and director of Whizz ICT who seeks to spread the use of technology in the community as he has been doing for the past 11 years, which all started with the fundamental need of residents to type and print C.Vs so that they could look for employment. Whizz ICT Centre is a well-established internet café formed in 2008, located in Khayelitsha.

Whizz ICT Centre had already attempted to create a website to fulfil this need, formally known as khayaweb.org, but this has been shut down ever since Whizz ICT and the web developer parted ways, leaving a vacuum where once a promotional website had existed. Thembinkosi has 27 years of experience with technology and believes it is the solution to address: "Safety, security, township awareness and active citizenship".

A formed team of students from the University of Cape Town (UCT), spear headed by Nonkululeko Mashiane, have been tasked with running an Information and Communication Technology project in the Khayelitsha township for the benefit of the organisation "Whizz ICT Community Resource Centre". In assisting this organisation, this team – IT4U - will investigate how to better promote the community of Khayelitsha by utilising its knowledge of Information Systems to give life to the project of Whizz ICT, Showcase Khayelitsha. This

2. Situation of Concern/ problem Definitions

2.1 Environmental Analysis

Negative view of Khayelitsha

Khayelitsha is viewed in a negative light. Due to the negative news reports, bad word of mouth and stereotypical view of Khayelitsha, it will be difficult to change the mind-set of people outside of Khayelitsha. Potential investors in Khayelitsha businesses may sway to other townships with similar potential due to external risks and factors that are related to Khayelitsha.

Limited Internet accessibility

Limited access to the Internet. Whizz ICT Centre is one of the biggest internet cafes in Khayelitsha but have limited internet connectivity per month. They have deals with internet providers due to how impressed they are with the services Whizz ICT Centre have accomplished, but they are still can't guarantee the best internet experience for their users.

Khayelitsha organizations have no online presence

Many of the businesses in Khayelitsha are not as developed as formal businesses found in the main city, so they will not have existing sites or social media to link their business to other people around Khayelitsha and the world.

2.2 Complete Problem Analysis

Difficulty contacting small vendors

There is a large number of small vendors dispersed around the city. Although a specific vendor can be found in the same place physically, communication using data is more expensive and therefore more difficult.

Difficulty securing funding and financing from 3rd parties

As a result of the negative perception of Khayelitsha, 'foreign' investment into the community has been apprehensive towards developing, limiting the growth and availability of jobs in the area. The recent development of a new shopping mall has been met with excitement and Shoprite has already donated R120000 towards a local school.

Local consumers spend money on goods predominantly in outside Khayelitsha

The money that the local residents earn is spent in other communities and circulates in these areas and not in Khayelitsha siphoning cash flow from the local businesses which dissuades businesses from creating employment.

Issues updating the website content

Partnerships that Whizz ICT has with website developers has often been one-sided and Thembinkosi has been unable to have his desired unique features implemented. As he knows the most about the local community and how to portray it, this is a disadvantage that needs to be rectified.

2.3 Business Opportunity

Short staffed to train system administrators

There are few people that Whizz ICT can hire to train a *Web Development* or act as *Website architects* or *Web Developers*, a skill that is in high demand.

Low capital base

Whizz ICT is a business founded by Thembinkosi who resides in the community, as a result of the lack of 'foreign' investment in the area, only people in the community have invested in the community which has a low average wealth in contrast to markets such as Cape Town CBD and Stellenbosch. The large population of Khayelitsha makes this an attractive investment opportunity.

Digital-literacy among the older and younger generation

Especially due to apartheid policies on education and the lack of government investment in the township, older residents have not been exposed to technology from a young age the same way that the young generation has.

3. Business Objectives

The first objectives of Whizz ICT which is led by Thembinkosi Qondela are:

- 3.1 Improve Khayelitsha by creating an online platform to give small businesses a web presence. This has been the long-term objective of the organisation for the past 11 years, with the current partnership with Penguin Protocol providing renewed hope in its realisation.
- 3.2 The company aims to change the image of Khayelitsha both nationally and globally. Benefits of this objective are:
 - 3.2.1 A good image will attract more investors to the community.
 - 3.2.2 Residents will have access to higher quality services.

3.2.3 Paves way to advertise prominent residents, members of the community will be inspired and mentally uplifted from the prevalent stereotypes surrounding the township.

3.3 Empower residents in the community by training them in computer usage by providing courses and equipping the residences with the right skills to start a job in Technology.

3.4 Be the best innovative ICT services provider for low income communities in South Africa.

3.5 To make the business more profitable so it can be better prepared for the future.

4. Project Assumptions and Constraints

4.1. Assumptions

4.1.1. Whizz ICT Centre will sufficiently be able to train youth in using and editing sites once we provide them with informative booklets or pdfs to learn from.

4.1.2. Whizz ICT will build the website from the prototype that we will provide at the end of the project.

4.1.3. Whizz ICT will carry out the advertising and exposing the platform externally and internally. Internal people will be small businesses and organizations in Khayelitsha. They will also be informed about the opportunity to publicize or even advertise their business on the site through word of mouth or paper-based advertising

4.1.4. Printing facilities will be available to us by Whizz ICT

4.1.5. Whizz ICT will get the log in details of website immediately from developers if external ones were hired.

4.1.6. Whizz ICT Centre employees will be able to update the platform until suitable youth trainees are found and trained.

4.1.7. Whizz ICT Centre will be able to obtain the finance required to create the website.

4.2. Constraints

4.2.1. The platform quality will be limited due to Whizz ICT being a non-profit company, therefore limited funds will be used.

4.2.2. Because whizz ICT is a non-profit company, expensive suggestions cannot be suggested as they do not have money.

4.2.3. Ideas relatable to Khayelitsha and its people cannot be properly generated by IT4U as there is lack of knowledge of the place.

4.2.4. Penguin Protocols will be hosting the website for free. Therefore, the solution should be built on a platform that will share its design.

4.2.5. The lack of consistent internet connectivity at Whizz ICT Centre may hamper the quality of the platform, due to inconsistent updating.

5. Internal Stakeholder analysis

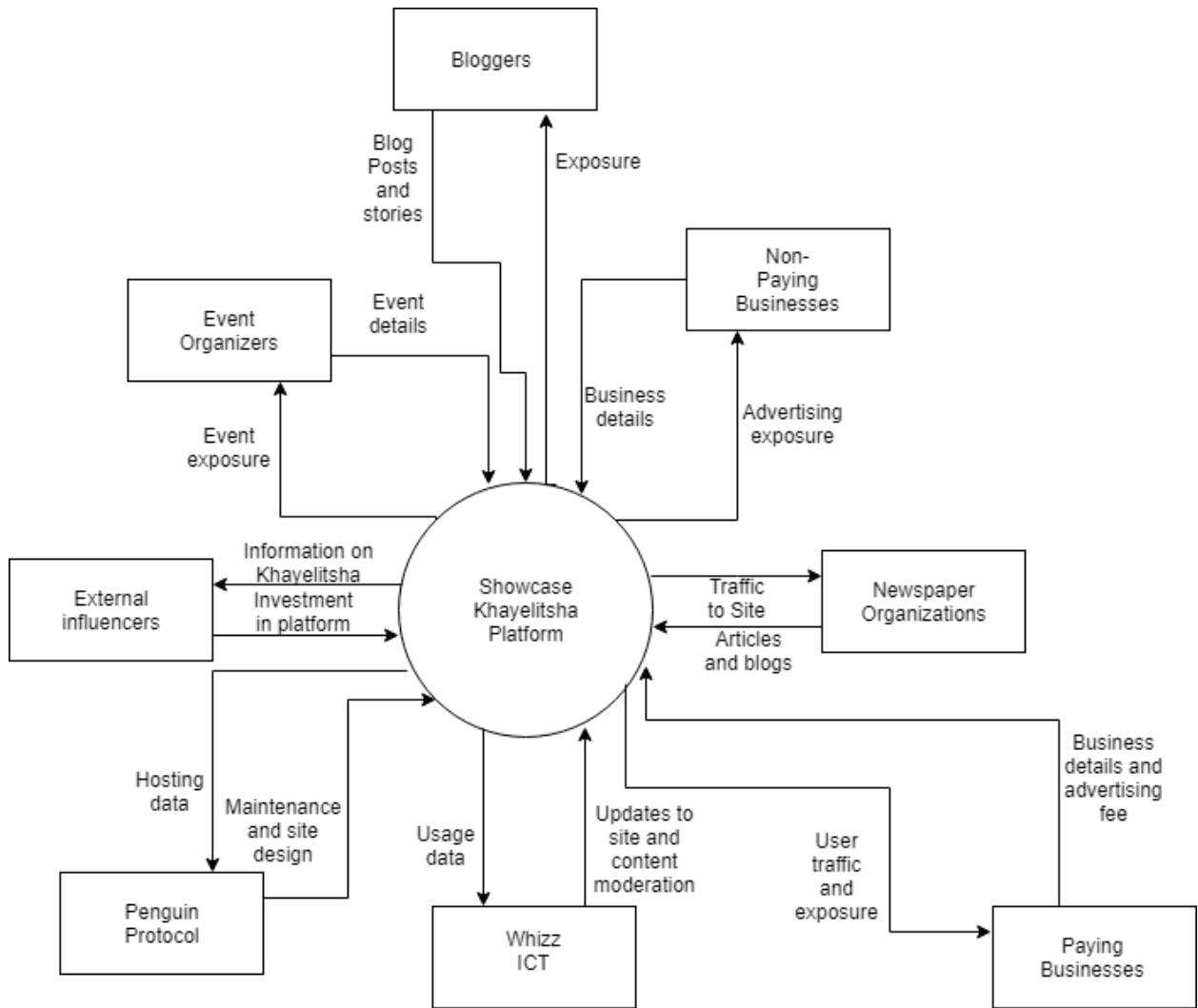


Figure 1: Context Diagram

6. Alternative Solutions

6.1 Solution 1: Web Presence Improvement

Improving the visibility of Khayelitsha businesses to the online community and attract more visitors to the community is the main goal of the project. This can be achieved through making it easier for most of the business locations and community sites easy to find when searching for them online. Google offers a service called Google My Business which can be used to add the address of a business to Google Maps and make contact information be shown on search results. For this solution Whizz ICT would have to

advertise that they offer the services of helping businesses add their information online and start out by going directly to close local businesses to help them add their information to the web. The cost related to this would be the use of advertising the new services that Whizz ICT would be offering local businesses. A benefit to using Google My Business for Khayelitsha businesses is that the service is free to use and can be updated as the businesses change their address details.

6.2 Solution 2: Social media presence

Social media pages are easier to manage and have built in analytics metrics that a business can use to see the number of visitors it attracts. This solution involves the creating of a Facebook page that would regularly post updates of events happening in the community. The Facebook page would be used for the following purposes:

- Posting updates on events that would be happening in Khayelitsha and occasionally some interesting facts about the community.
- It would also help promote other business ventures in the community by providing links that direct users to the said business' social media page.
- The page can also be used to display tourist attractions and posts about developing places in the community.

The costs associated with this solution will be zero as the social media sites provides all the functionality needed for maintenance and analytics for free. The benefit to using a social media platform to promote the community is that support is available from Facebook if a problem occurs with the community page. The only downside to this solution is that it is not customizable, and no new functionality can be added to the social media page, it is limited to what the site offers.

7. Recommended Solution: Website and introduction of additional courses

Overview of Solution:

The recommended solution involves the development of a website framework that will showcase the good things in the community of Khayelitsha. The website will promote the community and the members that have made a positive impact in the community as well as in the world. The adoption of a website will aid in changing the stereotypical view that the world has on Khayelitsha and shed a more positive light on the community by showing the good things that happen in the community as well as showcasing opportunities that are available in the community.

The website, which is to be called khayaweb.org.za, will offer several services on top of the information that will communicate information about Khayelitsha. The solution also involves the

implementation of additional courses at the Whizz ICT Centre such as digital literacy workshops as well as training programs for the youth of Khayelitsha.

Since Penguin Protocol will be providing our sponsor with templates, our job is to ensure that the most relevant content is placed on the website. All figures that are referenced can be found in the “Prototypes and Testing” section. (Disclaimer: the images used are of a prototype website that was developed to showcase what the site could look like. It is not the final website).

Services:

Khayaweb.org.za will offer the following services:

Advertising (Please refer to Figures 12 & 13)

Khayaweb.org.za will offer advertising space for businesses that are based in the community of Khayelitsha. These businesses are going to be advertised for free. Since there are so many small businesses in Khayelitsha that provide the same product/service, a directory feature will be implemented for these businesses. This directory feature will store the name, number and address of the business and display it in an easy to read manner. Reason for this is to prevent clutter and makes it easier for users to find a plethora of contacts that they can try to get a hold of once they get the chance.

More prominent businesses in Khayelitsha will have their own information display with images and a short description of what they do and who to contact if people are interested. The advertising space will display contact details, the name of the business, and additional information that the advertiser thinks will be necessary for people who are interested in them. In the future, once the website builds a decent amount of a visitor’s base, advertising will open for other businesses who will pay an advertising fee to be able to advertise their business. This is in order get the site to generate some form of revenue and make the site self-sustaining.

News Blogs (Please refer to Figure 11)

Khayaweb.org.za will allow users to be able to make blog posts onto the website. Before the blog post is made public, it will have to be reviewed by staff at Whizz ICT before it gets posted. Since the website is made to promote the positive things of Khayelitsha, the organization will have to filter out all the negative and irrelevant posts made by bloggers. Blog posts which talk about Khayelitsha in a more positive light are more likely to get posted, but bloggers can.

It is also necessary to hold blog posters accountable, therefore, it will be a requirement for the blogger to provide their twitter/Facebook page before the blog item that they post will be sent to the site administration team at Whizz ICT. This will also feature a banning system so that the blogging system can’t be abused. If a problematic user is found, the Site Administrators can ban them from sending information to them

Event Notices (Please refer to Figure 10)

Khayaweb.org.za will also have an event notice board that will display all the events that are happening in the community and provide details of the event’s location, dress code, and what the event is all about. This is so that people who are interested in exploring events have the chance to know which events are occurring and be able to prepare to attend them. This will aid in promoting the festive side of Khayelitsha, which is something that is overlooked by the media.

Event organizers will be able to send the details of the events to the website, and all the items that are required to promote the event, be it posters, videos etc.

Safety Notices

Khayaweb.org.za will also have a safety notice board that users will be able to access to know which areas are safe and places to be careful in at specific times of the day. Even though good things happen in Khayelitsha, people should stay vigilant and should be aware of the dangers that do exist in Khayelitsha. By providing this information, visitors will be safer during their visits.

Development & Hosting

The website will be developed and hosted by the facilitators of Whizz ICT's web development training course, Penguin Protocol. According to the Project Sponsor, they are willing to host the website and will be providing the sponsor with several website templates that they will be able to choose from, it is recommended that the youth be integrated in the decision making, this can be done with the use of surveys. The hosting of the site should also include the storage of all relevant information on their website as well as storing

Additional Courses

This solution doesn't rely only on the creation of a website, but it also relies on the participation of the community. If the community doesn't know how to use the internet or how it works, then it will be difficult to market Khayelitsha in the most optimal manner. Therefore, it is important for Whizz ICT to introduce additional courses so that both community members of Khayelitsha will be able to assist and the youth will be able to take over and maintain the site. Whizz ICT will provide the following additional courses:

- Social media workshops for businesses who are interested in making a move onto social media
- Digital literacy workshops to train people to be more aware of the internet, the dangers that lie on the internet and how to avoid these dangers
- Basic back-end web development with PHP

Also, it is recommended that Whizz ICT procure a dummy website from Penguin Protocol so that the youth and people who are interested can play around with it and once ready, they can take over updating the website after passing a test

Cost & Resource Requirements

The implementation of this solution will incur no initial cost on Whizz ICT. This is because, as mentioned earlier, the hosting and development of the site will be done by Penguin Protocol. However, Whizz ICT will need to hire more employees who are willing to help with the management of the content on the website.

Finally, we will also update several locations in Khayelitsha, making them easier to find and making the area easier to navigate.

8. Comparison of solutions

Solution 1 which is improving the web presence of Khayelitsha businesses and organisations only focuses on one aspect, which is making it easier for people to find the locations of the places. Although using Google My Business would be easier and be of no cost, it does not help achieve the business and project objectives of empowering and improving Khayelitsha. Solution 2 focuses on using social media as a platform to promote Khayelitsha and is also of no cost. The recommended solution which is the creation of a Khayelitsha website achieves what both solution 1 and 2 are meant to solve and more. It would list Khayelitsha business details and where they can be found. It would also be an online platform which people can visit to be updated on what is happening in the community and be able post their own appropriate content on it too. The only difference between the recommended solution and solution 1 and 2 is that it has a financial cost associated with it, which is estimated to be close to a once off fixed cost of R1000 for the development of the website by a developer

Part 2 Project planning & implementation

1. Project objectives

1.1 To fulfil the needs of Whizz ICT Community Resource Centre and provide additional value for the owner by providing a web presence for the citizens of Khayelitsha so that they can be found online in a positive light.

1.2 To develop a framework to showcase people and small businesses that are making a positive impact in Khayelitsha.

1.3 Share our skills in project management to assist with the strategic goals of Whizz ICT and tackle challenges in the technological sphere that fall within our area of expertise.

1.4 Discover solutions to the specific problems that are unique to Khayelitsha and recommend solutions by the end of the project (3 months).

1.5 Enhance the current capabilities of Whizz ICT to be able to maintain a website promoting Khayelitsha

1.6 Facilitate Business change towards online representation

1.7 Offer a new service to the Khayelitsha market via Whizz ICT centre

2. Project Stakeholder Management

Stakeholders are one of the most crucial factors to the success of any project. Stakeholders need to be identified, analysed and avenues of communication formalised. Good feedback to the following stakeholders is important.

Of primary importance is the project sponsor, Whizz ICT, which defines the vision of high-level objectives, approves requirements, time tables and budget, authorises the use of resources, approves the project, identifies and recommends risk mitigation, approves the cope, resolves issues, mobilises business resources and provides final acceptance of the solution of the project.

Identifying Stakeholders

Stakeholder Name	Impact	Influence	Interdependence	Interest	Involvement
Whizz ICT management	High	High	High	High	High
Residents of Khayelitsha	High	Low	High	Low	Medium
Khayelitsha businesses	High	Medium	Low	Medium	Medium
Local government	Medium	Medium	Low	Low	Low
IT4U team	Medium	High	High	High	High
Nyano team	High	High	Low	Medium	High
Vukani Newspapers	Medium	Medium	Low	High	Low
Dillion	Low	High	Medium	High	Medium
Knowledge co-op	Medium	Low	Low	Medium	Medium
Greater Cape Town community	Medium	Medium	Low	Low	Low
Tourists	High	High	Low	Low	Low

Table 1: Different Stakeholders

3. Prototyping and Testing

To test the usability and design of the proposed website, a prototype was created and shown to Whizz ICT Centre's owner, Thembinkosi. A prototype will be a dummy of the final solution. Thembinkosi would have the final say of whether the design and content accurately depict what he was looking to get out of the project.

The prototype was created on Wix, because the site offers user customization and templet designs for different types of organisations. A hi-fi prototype was chosen since the end of the project was closing in, Thembinkosi had to see a prototype that closely resembled the final product. To save time creating the hi-fi prototype the templates offered by Wix were customized. The testing of the site would also be done by Thembinkosi as well, so that he can give us feedback on if the site depicts Khayelitsha appropriately. The screenshots of the various screens are as follows:

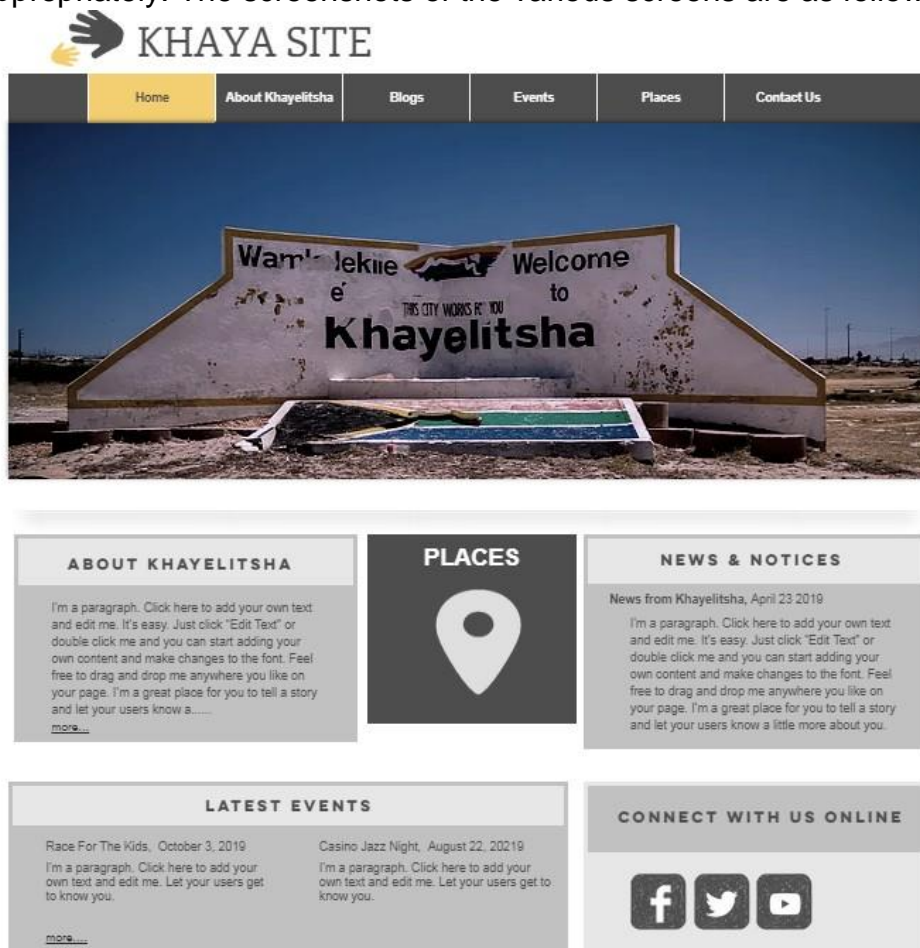


Figure 2: Home Page of Khaya Site



About Khayelitsha

History

I'm a paragraph. Click here to add your own text and edit me. It's easy. Just click "Edit Text" or double click me and you can start adding your own content and make changes to the font. Feel free to drag and drop me anywhere you like on your page. I'm a great place for you to tell a story and let your users know a little more about you.

This is a great space to write long text about your company and your services. You can use this space to go into a little more detail about your company. Talk about your team and what services you provide. Tell your visitors the story of how you came up with the idea for your business and what makes you different from your competitors. Make your company stand out and show your visitors who you are. Tip: Add your own image by double clicking the image and clicking Change Image.

I'm a paragraph. Click here to add your own text and edit me. It's easy. Just click "Edit Text" or double click me and you can start adding your own content and make changes to the font. Feel free to drag and drop me anywhere you like on your page. I'm a great place for you to tell a story and let your users know a little more about you.

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Figure 3: About Khayelitsha

Sub Places

- Harare
- Inkanini
- Khaya
- Kuyasa
- Makhaya
- Makhaza
- Site B
- Site C
- Town

This is a great space to write long text about your company and your services. You can use this space to go into a little more detail about your company. Talk about your team and what services you provide. Tell your visitors the story of how you came up with the idea for your business and what makes you different from your competitors. Make your company stand out and show your visitors who you are. Tip: Add your own image by double clicking the image and clicking Change Image.



More...



Figure 4: About Khayelitsha Part 2

Events

22
August

Casino Jazz Night

I'm a paragraph. Click here to add your own text and edit me. It's easy. Just click 'Edit Text' or double click me and you can start adding your own content and make changes to the font. Feel free to drag and drop me anywhere you like on your page. I'm a great place for you to tell a story and let your users know a little more about you.

12
July

Annual Invitational Golf Outing

I'm a paragraph. Click here to add your own text and edit me. It's easy. Just click 'Edit Text' or double click me and you can start adding your own content and make changes to the font. Feel free to drag and drop me anywhere you like on your page. I'm a great place for you to tell a story and let your users know a little more about you.

3
October

Race For The Kids

I'm a paragraph. Click here to add your own text and edit me. It's easy. Just click 'Edit Text' or double click me and you can start adding your own content and make changes to the font. Feel free to drag and drop me anywhere you like on your page. I'm a great place for you to tell a story and let your users know a little more about you.

Figure 5: Events

News Blogs

Beginners Ballet

14 April 2019
Written By:
Mfundo Dhladhla

Tell people more about the services you offer. Use this repeating layout to display content. It's an easy way to keep your customers up to date with what's happening. Want to make this content your own? Simple drag and drop elements like text, images and links, or connect to data from your collection. Tell people more about the services you offer. Use this repeating layout to display content. It's an easy way to keep your customers up to date with what's happening. Want to make this content your own? Simply drag and drop elements.

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The Second Beginners Ballet

28 March 2019
Written By:
Mfundo Dhladhla

Tell people more about the services you offer. Use this repeating layout to display content. It's an easy way to keep your customers up to date with what's happening. Want to make this content your own? Simple drag and drop elements like text, images and links, or connect to data from your collection. Tell people more about the services you offer. Use this repeating layout to display content. It's an easy way to keep your customers up to date with what's happening. Want to make this content your own? Simply drag and drop elements.

[Read More...](#)

Figure 6: News Blog Page

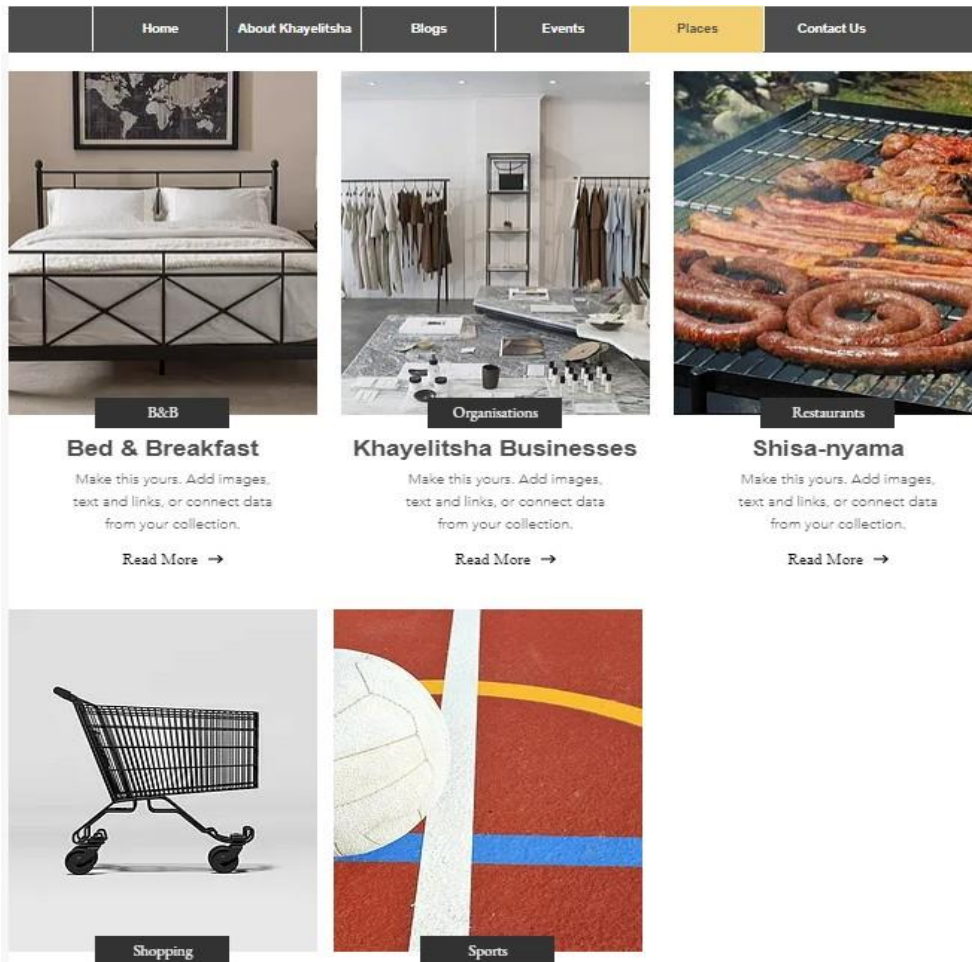


Figure 7: Categories for the different businesses found in Khayelitsha

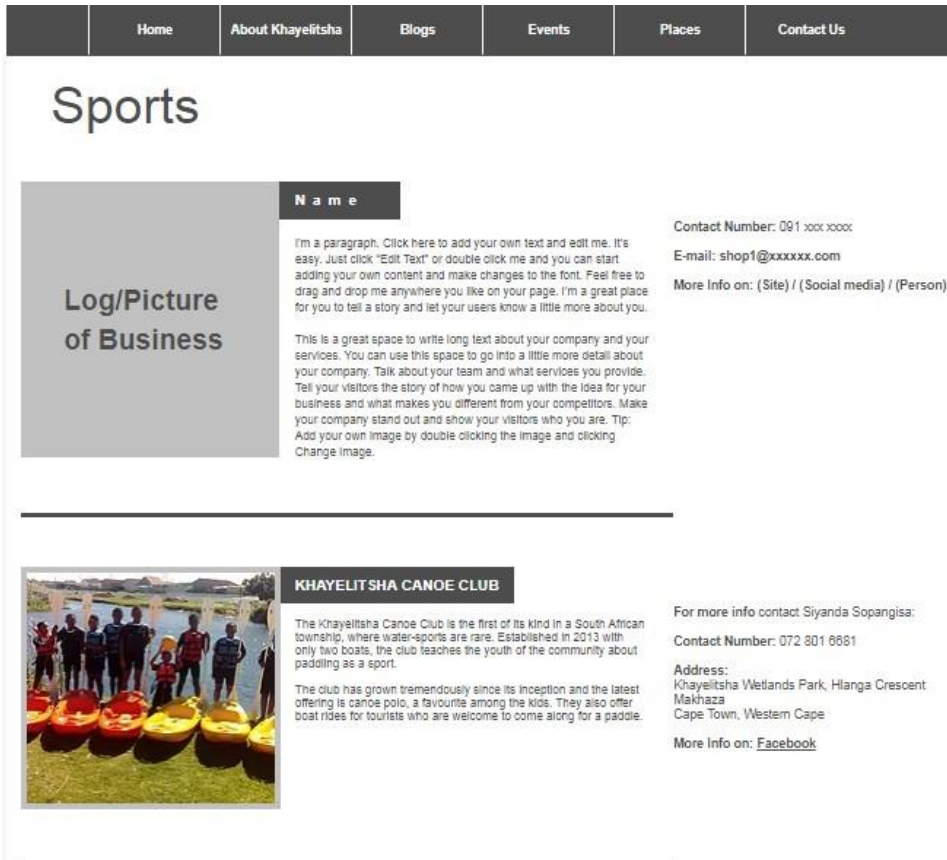


Figure 8: Sport Page. Example of how businesses will be displayed

Feedback and Testing:

Thembinkosi was shown the website with the help of one of the team members. They started from the home page (see figure 7). The home page will be where the user will see a summarised version of the different pages on the site. Thembinkosi loved the idea of keeping the home page simple and not making it full of words, because it may detract visitors. He asked the group if it was possible to edit the front cover picture, because some of the words on the wall are scraped off. Another point brought up during the demo was that a search bar would be a good add-on if the user was looking for a store or organization's details in Khayelitsha but couldn't find it on any other sites.

They then moved onto the About Khayelitsha page (see figure 8 and 9) where the page will detail the history of Khayelitsha, where Khayelitsha is located and the sections of Khayelitsha. Thembinkosi was so pleased that he said he was holding himself back from adding details about Khayelitsha on the prototype. More details would be included at a later stage of development.

The next 2 pages were ran through during the demo, because they lacked a lot of detail. Events (figure 10) and News blog (figure 11). The events page was happily accepted. The news blog page was accepted, but an add-on was asked for. The add-on would be to allow users to add their own news or stories that would need to be permitted by the admin for it to be displayed on the site.

The next page viewed was the Places page (see figure 12) where key businesses and organizations are grouped by 5 different categories: B&Bs, Organizations, Restaurants, Shopping Stores and Sports. These 5 categories all link to different pages. Thembinkosi stated that he would like extra categories, like churches, schools and hospitals. He said that these new categories are to promote the hard and lower income workers that don't get praised in Khayelitsha.

The last page shown (seen on figure 13) is one example of the category pages on the site. The intension of the page is to advertise and promote the sport clubs and businesses in Khayelitsha. There will be an image of the club logo or a picture of a group from the club with a short summary of what the club represents. The contact details will be placed on the right-hand side of the details and will include a number, social media and address. If a site is available, the details will be found on their site. Thembinkosi loved the design and found no problem with it. He was surprised by the information displayed on figure 7 and was eager to have the site.

In conclusion, Thembinkosi was very pleased by the prototype. He was so happy he wanted to know if it were possible to start building the site's content. He wants to keep the design as is, but Wix doesn't allow users to take their design and use on another hosting service.

4. Outputs/Exhibits

4.1 Website prototype design

The design and final prototype for the website, which was presented and approved by the project sponsor, Thembinkosi, is shown as screenshots above in figure 7, 8, 9,10,11,12 and 13.

4.2 Short User Guide

Home page

Any user that arrives on the website will see the home page. The menu bar on the top of the page provides easy traversal for the user. The user can either click on the desired page in the menu bar or click on the described sections at the bottom of Figure 7 to go to the desired page.

About page

When the user clicks on the “About Khayelitsha” menu option they will be taken to the about page which has a detailed history of the Khayelitsha community as shown in figure 9.

Blogs page

When the user clicks on the “Blogs” menu option they will be sent to the blogs page which includes news blogs posted by khayelitsha newspaper agencies such as Vukani and City Vision. Khayelitsha community members can also submit their own articles which will be revised by an administrator to see if it meets the appropriate requirements. This is shown in Figure 11.

Places

The places page contains categories of locations and organisations that people could visit. When the user is on the places page they can click on the desired category (figure 12) and be taken to the relevant page such as the sports organisations page (figure 13).

4.3 Website design manuals

We have availed and consolidated relevant website development resources which can be found on Google Drive:

https://drive.google.com/open?id=19QGUMYmj9XTiLvXutykdWJOLFv8y_Gcc

5. Challenges and Limitations

- a) **Prototype design:** Using wix.com as a prototyping tool meant that there was a limitation in the amount of new designs we could add to the prototype. The design and final prototype were therefore limited to the functionality provided

within the wix.com interface. A challenge experienced with the prototype design was that the design is not transferable from Wix to another host, so the sponsor will not be able to take this design and add more content to it to create the final website deliverable. The project team does not have the necessary skills to do more than produce a prototype, so a fully functional website cannot be a deliverable of this project.

- b) Time:** Since all individuals involved in the development of this project are students, we had a challenge with scheduling times to meet and discuss what needed to be completed at different phases of the project. We had problems getting together at the start of the project due to setting up meetings times at timeslots that conflicted with one or two group members. Due to use being in the starting phase of the group work, we had to find the correct way of working together in a short period of time. Time management was such an issue that we had to create a contract that would fine any lateness or missed meetings for us to get productive. The fines were going to be used for printing documents and the final poster. This led to change in involvement from the group. Another way we tried to tackle the challenge of meeting was that most discussions were done over WhatsApp group messages and calls. The team only managed to meet at least once a week during the project period. Because of the time constraints and sponsor availability, the team only managed to meet with the project sponsor twice and further communication with the sponsor was completed through email. We found a way to bond and work as a group at just the right time and we felt as if we could have completed more at the start of the project if we used the same work ethic we finished with.
- c) Communication:** An issue that was faced during the project was communicating with Thembinkosi about the project details and what he thought we were delivering as the final product. At the start of the project we had a meeting with him discussing the background of his business and the content he would like on the site. The discussion was limited to 30 min and we had to share the session with another group, so time restricted us getting the details we needed. Before we even got to the meeting, we were told by Knowledge Co-Op that the project will not involve any coding, so the discussion of code with Thembinkosi was not mentioned. This was a key factor when we were presenting the prototype to him during the final 2 weeks of the project, because he loved the design of the framework, but he wanted the code for the site as well. He had planned on having HTML code of the site so that he can pass it onto Penguin Protocol to continue the development and host it on their servers, but he was disappointed to hear we were only giving him a design. He felt as if the project would be a failure if the end product was just the design of the site, because he feared that the company hosting the website would change the design of the site or charge him a large amount of money for developing the site. We offered to do research on

whether Wix would allow us to copy the code of the site and host it elsewhere, but it turned out that was not possible.

The communication between Knowledge Co-Op, Whizz ICT Centre and IT4U should have been better and it has led to the key stakeholder feeling let down due to high expectations.

- d) Conflict of ideas:** When dealing with a large group of people in a project, there will be differences in thoughts and ideas for parts of the project. The group faced multiple scenarios where someone's idea goes against what other members believe to be the right solution. Thinking of solutions that were beneficial to promoting Khayelitsha and feasible for Whizz to achieve had the most conflict of ideas. Questioning the work of others was a common action during the project, which consumes the limited time we had to complete the project and it could have harmed team chemistry. Most of the work was done in pairs, because it made it easier to deal with conflicts in a 2-person group, rather than a 5-person group.
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