DEDAN KIMATHI UNIVERSITY OF TECHNOLGY

MONTHLY NEWS BULLETIN

Better Life Through Technology ISSUE NO ;20 AUGUST 2020

In this issue;

•Varsity Team Wins Microsoft Contest

• DeKUT Students Innovates an app to help Farmers Detect Pests and Diseases

• Coping with Bereavement during COVID-19

• COVID-19 & Virtual Therapy

Varsity Team Wins Microsoft Contest

Joshua Ndemenge, a Microsoft Student Ambassador, led a team of five students to win this year's Medical Applications, Game of Learners (GOL) which was sponsored by Microsoft's Africa Development Center. The challenge was to demonstrate the application of technology in developing e-health systems that will enable patients to access normal medical services remotely. The app, known as Dubbed Remd (Short form for Remote Doctor), uses technology to avail a set of tools and services that aim to bring health care services to a user or an organization. Through the app, a user requests for consultation services selecting whether they would like consultation with either a general physician, a psychiatrist, or a pediatrician.

They then receive a message from the bot to begin triage where all the symptoms are recorded. After the triage, the bot sends all the information recorded to the doctor on the App. The doctor continues the conversation with a user via SMS. If the doctor deems it necessary, an in-person appointment can be set up. "Any user seeking medical services can access our services through the mobile app or the USSD app. While the doctor on the other end can interact with these users using the windows app," explains the RemD team leader, Joshua Ndemenge. This initiative which was developed by Microsoft's Africa Development Centre (ADC) is completely student-driven and hands on. The overall objective is to empower the students to develop impactful solutions that can help address some of Africa's and the world challenges.





DeKUT Students Innovates an app to help Farmers Detect Pests and Diseases



"On June 27th -29th 2019, during the Engineer's Hack organized by the Microsoft Student Ambassadors, the Plant Signal team; Maria Njoroge – Executive Officer, Shadrack Kiprotich – Operations officer, Aaron Kipkoech- Technical officer, Delivce Ndegwa- Information Officer and Mercy Melody Chemutai- Marketing Officer, participated in the 48-hour hackathon challenge. This was the initial brainstorming of the plant signal and getting to identify what the farmers were encountering. .

According to the Food and Agricultural Organization (FAO), pests and diseases on crops cause a 40% loss of the absolute maximum production volume in agriculture. Farmers, their families, and our ever-growing population depend heavily on secure harvests. The control of plant damage is based on expert knowledge as is the recommendation for appropriate treatment. The human expertise is scarce. The vast majority of farmers have little to no access to such services and knowledge especially when they are needed. Food and Security is a top agenda in the Big Four Agenda as we seek to address the issue of the secure harvest to feed the increasing population. Farmers lose their crops as they struggle to identify diseases that attack them. Some of the key identified reasons are: Difficulty to recognize symptoms of disease when they are still at primary stage, the inability to diagnose some type of crop disease, difficulty to verbally describe symptoms that they observe on crops to remote agricultural officers. After identifying the problem statement, we figured out a way to bring a solution to our farmers by a project called PLANT SIGNAL which is a free, interactive, easy to use smartphone app for our farmers in Kenya

The app is powered by a strong Artificial Intelligence network that delivers a diagnosis in seconds. With every picture sent, the app grows and more problems can be recognized automatically. This data enables real-time monitoring of the occurrence and spread of crop diseases in certain regions, which is a key decision support system in the agricultural sector.

The National Youth Council of Kenya, in collaboration with Kenya Pipeline Company, Huawei, Royal Media Services among others organized Fursa Vs Virus Challenge to create tech and non tech solutions to the most pressing challenges posed by the novel coronavirus pandemic and for the economy recovery afterwards. This was a collaborative 72 hours where my team worked to bring a long lasting solution to the Agriculture sector and also the food security at large. This was a chance to look into our problem statement and we did find out that most farmers at this pandemic cannot access services by Agricultural officers due to the social distancing regulations by the WHO and due to this most farmers cannot access help. We therefore updated our application to suit their needs since at this time food security is the key thing and most of the farmers depend on Agriculture as their source of income." Maria Njoroge – Executive Officer

COVID-19 & Virtual Therapy



Have you seen a therapist recently? Will virtual therapy help me? Sometimes, it requires profound "disruption to the system" to allow in a new dimension of doing things. In the case of online therapy, the coronavirus pandemic may have done just that. Typically, therapy sessions are done face to face. However with the new norm, the pandemic has forced therapists and clients to adopt a new mode of interaction for therapy to remain effective. Therapists have opted to engage clients using video-chat apps or phone calls. Remote conversations lead to effective treatment, but if this is the first online session, there are some details worth considering. How does one make the most of remote therapy? There are several preparations that are needed before beginning sessions. These include testing of the app or the software to be used; making sure you will have privacy during your session, and therefore limit distractions. What happens if your therapist will not engage in remote therapy? Your therapist may refer you to someone who can provide therapy remotely for as long as it is needed. If you don’t want to see any other therapist you can ask

your therapist about books, online materials and activities that can lead to your healing and promote personal growth. Is remote therapy effective? Certain therapies seem to be just as effective when done virtually. Read more at; https://covid-19.dkut.ac.ke/

Coping with Bereavement during COVID-19



"He who has a way to live can bear almost anyhow" Friedrich Nietzsche. The COVID-19 pandemic has made everyone experience struggles in how life has changed. These are unprecedented times, and each person is experiencing their own loss and grief. The loss of social connection, physical mobility, friends and family members, as well as daily general routine has had an impact on all of us. Globally, restrictions including social distancing, self-isolation and travel bans have been put in place to help slow down the spread of the virus. This has meant that many people cannot spend time with their loved ones who are in critical stages of illness. Individuals are dying in isolation. Loved ones are no longer allowed to go through the grieving rituals like spending time with the body or viewing the body as they would have done previously. Individuals can no longer hold memorial gatherings, the number of people to attend and the time taken for burials have been restricted. The order of the burial ceremony is also dictated by the Ministry Of Health guidelines. People are dying after spending their final days in hospitals separated from their families and loved ones. Under normal circumstances, bereavement which is the experience of losing a loved one is difficult. COVID - 19 has made grieving a much more difficult journey. This is because of the isolation, restricted movement and limited contact with family and friends. COVID-19 has necessitated that the bereaved mourning isolation. Before the pandemic, there would be a lot of social support for those who had lost a loved one. Friends and the community would visit and condole with the family as they show their last respects to the deceased. Currently, some family members are not given an opportunity to bid the deceased farewell. Members of the family that are out of the country may not make it back in time for the funeral, given the requirements of immediate burial; the need to produce certification to show that one is COVID - 19 free before exiting one country, a fourteen day mandated quarantine on entering the country etc. This is upsetting and causes increased anxiety. Read more https://covid-19.dkut.ac.ke/