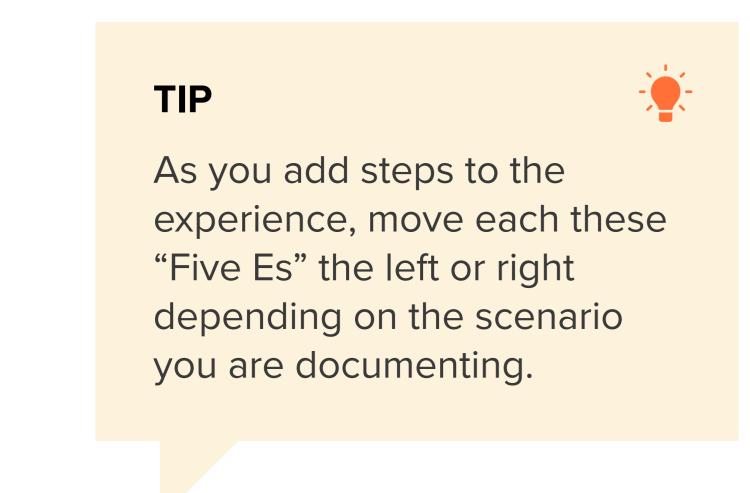
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Gesture based system for sterile browsing of Radiology images

Humans are able to recognize body and sign language easily. This is possible due to the combination of vision and synaptic interactions that were formed along brain development. In order to replicate this skill in computers, some problems need to be solved: how to separate objects of interest in images and which image capture technology and classification technique are more appropriate, among others. In this project Gesture based Desktop automation ,First the model is trained pre trained on the images of different hand gestures, such as a showing numbers with fingers as 1,2,3,4. This model uses the integrated webcam to capture the video frame. The image of the gesture captured in the video frame is compared with the Pre-trained model and the gesture is identified.



Upload dataset, train the model, Feed gestures and corresponding actions, install the system in hospitals, use the automation to access files and make appropriate decisions	Entice How does someone initially become aware of this process?	Enter What do people experience as they begin the process?	Engage In the core moments in the process, what happens?	Exit What do people typically experience as the process finishes?	Extend What happens after the experience is over?
Steps What does the person (or group) typically experience?		Need for accessing file for secondary assessment in case of complications In case of request for second opinion the file may be accessed again The gesture based system Wear proper equipment to distinguish their hands Begins showing the gestures to access the files The proposed system identifies the surgeons hands alone pivoting on the condition that they wear the specified gloves The gesture based system is activated and gets ready to take inputs The gesture based system identifies the surgeons hands alone pivoting on the condition that they wear the specified gloves			
Interactions What interactions do they have at each step along the way? People: Who do they see or talk to? Places: Where are they? Things: What digital touchpoints or physical objects would they use?	Surgeon takes help from nurses The doctors take help from nurses for things they cant do on their own A surgeon, an anesthetist, a surgeon's assistant, a nurse anesthetist, a circulating nurse, and a surgical technologist. Sometimes worn underneath white coats, scrubs are the uniform of choice for nurses and surgeon's anesthetist, a circulating nurse, and a surgical technologist. Sometimes worn underneath white coats, scrubs are the uniform of choice for nurses and surgeons. These agents are used for disinfecting the materials as well as themselves	Interaction with the system developers Interaction among future users Testing the working of the system Introduction to the gesture system's equipments Interaction with patients Interaction with patients Developers test and correct the model Doctors get acquainted with new instruments Doctors need to inform and get patient's consent	Understanding of the dataset The liput and Output devices of the automation model The doctors can perfect the way they show gestures The users get accustomed to the new equipment The doctors can be the doctors the automation model The doctors can be the doctors the doctors and the perfect the way they show gestures The users get accustomed to the new equipment The doctors the doctors and hence sterile The doctors and hence sterile	Change in interaction pattern More understanding about the system More knowledge about various gestures System Maintenance Change in duration of the medical procedures Change in duration of the medical procedures They learn more with every time they use the automation They learn more with every time they use the automation They learn more with every gesture communicates The members of the hospital need to know the maintenance routine Procedure durations may get longer or shorter	The system is logged off Members of the OT ensure the system is logged off after completion of the surgery Technicians maintain the dataset Required modifications or updates are maintained The system is flexible The system is flexible The system is flexible Now surgeons start using the new equipment also Sugge doctors use various equipment inside the OT The data is handled by specialists
Goals & motivations At each step, what is a person's primary goal or motivation? ("Help me" or "Help me avoid")	To help to have contactless navigation Access files in OT with lesser human interaction Absence of technologies Help wider audience From promising method to gain knowledge and assist patients. Avoid physical contact but still access the resources To help people with disabilities with communication Opens a new filed Of exploration and professional may learn new tech	To help to detect complex movements. Improved sanitation Increased certainty in decisions Intergrating new technology Increase applications of IR in medical field Complex hand gestures can be identified with a strong algorithm Reduces chances of spreading infections With the availability of reviewing options, better and timely decisions are made With the availability of reviewing options, better and timely decisions are made The proposed automation is modern and helpful in medical field can be also be used to predict diseases from scan reports, etc	Good performance	To help to have improved safety. Excitement about using new tech Error free process Good success rate User satisfaction The surgeries carried out must be contented after using new tecy The user must be contented after using the proposed system	Maintaining a strong database Updated with new gestures Improve accuracy Implement other algorithms Separate staffing for maintaining the database New gestures and corresponding actions can be added to the model Constantly training the model with new datasets increase accuracy Compare the performance of various methods Can than
Positive moments What steps does a typical person find enjoyable, productive, fun, motivating, delightful, or exciting?	New innovation Useful to professionals Promoting the new ideas Creating a user friendly interface Work flow The novelty of the design and implementation Makes working easier for the professionals More support to valid changes made to existing systems The Ui is easy to understand an use The working procedure is simple	New equipment Interaction with other professinals Working with new equipment maybe motivating The network of professionals expands across fields More involvement Experience Balancing work A new learning experience Lesser work load for nurses	Accuracy Performance Flexibility Sterile browsing Easy to use GUI Maintaining accuracy throughout The performance should be same for all types of interactions Required modifications or updates are maintained Required modifications or updates are maintained No need to physically navigate within the room to access resources Functionality and Design	Ease of functioning Comfort zone Increased trust Recommendations Data base acts as a backup The working model should speak for its credibility If the model works properly, it gets recommended Backup and restore options are available	Backup and recovery Application can become open source More people are benefitted The system becomes useful for a wider audience The system becomes useful for a wider audience
Negative moments What steps does a typical person find frustrating, confusing, angering, costly, or time-consuming?	Prior implementations Unavoidable limitations Public stigma No funding or time Innovation's credibility Idea may have been partially Some constrains cannot be overcome Some constrains cannot be overcome tech People may have a fear towards new tech New software do not receive approval funding easily Trustworthiness increases once people start using	All medical professionals may not support Needs skilled members Learning process Compatibility Change in old procedures Some professionals may like to stick with traditional methods Skillful people with prior knowledge can use it better Learning process is differently phased for different individuals The new steps must be compatible with old ones It may be difficult it incorporate new steps suddenly	Power consumption Equipment failure User's lack of understanding Wrong gesture Wrong action Wrong action Wrong action If action associated with gesture are not consumed than before because of additional devices Causes havoc if the device crashes Without proper training and understanding user may not be able to use the model efficiently If action associated with gesture are not coupled properly	The surgery duration Success rate Poor satisfaction Training the Model maybe required Lack of confidence Duration of the procedure may Increase Success rate may not be high throughout Success rate may not the components Further training after implementation maybe required Due to lower success rate, people may lose confidence	Availability of technicians Improper maintainance System crashes Lower performance that estimated Technicians who know the system maintenance also degrades the system long working hours System crashes Lower performance that estimated If the theoretical expectations are not delivered practically
Areas of opportunity How might we make each step better? What ideas do we have? What have others suggested?	Web app implementaion Health camps Hire freelancers Compatibily Complex dataset Win-win for learners and the years and the years	Simple GUI Code for more gestures Increase specificity Training sessions Specialized Assistance Specialized Assistance The UI should be kept as friendly as More no. of gestures can be added for can be added for gentlement and procedure manual must be in contact with the procedure manual must be in contact with the Unexpired Nat 7 for the UI should be the contact with the Unexpired Nat 7 for the UI should be the Unexpired Nat 7 for the UI should be the UI	Long distance Occupied background Smoother transitions Better visualization Recognize other gestures Should not depend on a clear on a clear on display Different angles of vicusing images even while holding	Automatic log off Prediction of next move Keeping track of previous moves Estimation of duration Get feedback Log off system after a specified idle time Based on the moves performed before the track of all moves so that moves so that surgeries will give surgeons from after surgeo	Languages Funding Stand alone app implementation Explore other algorithms The hospital should keep funding such To keep the system explore new algorithms that