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Research Paper



Plan of an awareness system on SRH in light of the identification of emotional facial expressions

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Abstract

In today's world, the information systems have turned out to be fundamental for associations which act as a need, with the end goal to make choices based on finer quality. It is because of this reason that powers the introduction towards the computerization procedure. Nevertheless, all associations are looking for an information system which permits a development, an advancement and a change of their business procedures. This is the purpose behind considering setting up an awareness information system with the goal that it can sensitize residents about infectious and irresistible illnesses, for example, AIDS (HIV) and hepatitis (A - B - C), and adjust to the necessities of residents as per their inner states communicated in their online teaching, and different measures of adaptation (age, sexual orientation, city, language,level of knowledge).
The target of this research is to examine the administration, which is in charge of the information system that aids in sensitizing on sexual and reproductive health. This work is portrayed by the utilization of information technology and correspondence, targeted at enhancing the procedure, correspondence amongst clients and information systems and the viability of the organization, either as far as due dates, quality, or profitability of public officials to ensure the age.

Keywords: *Information system; Awareness; Adaptation; Emotional state; Sexual and Reproductive Health; OPALS.*

1. Introduction

At present, the information systems assume an undeniably urgent part among the present day assets targeted at bringing issues to light, nevertheless, numerous individuals discover these information systems contradictory with their prerequisites. To be persuaded, it is sufficient to see the quantity of unsatisfied individuals to this innovation.
In operating our outreach costs as dynamic individuals from the Pan-African Organization against AIDS (OPALS-Morocco), we get ourselves all the more frequently in need to manage diverse societies and totally unique attitudes, where the utilization of distinguished pedagogy throughout the plan of an information system turns into a need.
This dangerous issue pushes us to work emphatically to expand the usefulness of the information system, keeping in mind the end goal to develop another versatile system capable of achieving every one of the segments no matter what.
In light of these objectives, we will handle the the plan of a versatile information system with a few superb choices in various joining sciences, for example, medicine, brain science and science training.
To prevail in this activity, we will start by disclosing boundaries of present information system and, furthermore, we will endeavor to distinguish the significance of emotional states as basic factor of common understanding. The object is to fortify the awareness part keeping in mind the end goal to develop the obligations of trust with the age and subsequently secure it.

2. Awareness System in Sexual and Reproductive Health In Protected Age Group

Sexual and reproductive health is viewed as one of the primary columns, which guarantee the dependability and the foundation of an equity inside the community, by boosting the loss of sexually transmitted diseases and the contraception.
Within the primary objectives of the idea of "Sexual and Reproductive Health" [1] :

- ✓ Keep away from diseases, affections and shortcomings identified with sexuality and reproduction, and profit from suitable care if there should be an occurrence of necessities;
- ✓ Be secured from brutality and other destructive practices identified with sexuality and reproduction.

All nationals have the privilege to have awareness; it must not be reserved or restricted to a section anymore. However, all the administrative and non-governmental organizations (NGO) of the organization need to draw in and contribute in this venture, which plans to guarantee that the following generations live in great condition.
As indicated by a research that we led with the Pan-African Organization against AIDS (OPALS) in Morocco, concerning:
Sexual and Reproductive health of teenagers and youngsters:

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- ✓ 53% of young ladies stated, they were stunned of the presence of the main menarche.
- ✓ 12% of young ladies aged 15 to 24 years who had sexual intercourse have an undesirable pregnancy.
- ✓ In immature young ladies of 15 to 19 years, the principal reason for death are caused by pregnancy complications
- ✓ 15% of youngsters don't have a clue about contraceptives.
- ✓ Maternal mortality within teenagers of 15 to 19 years of age is twice as that of ladies of ages 20 to 29 years
- ✓ Maternal mortality 112/100 000 live births (2011)
- ✓ The child mortality 30/1000 NV (2011)

The study of disease transmission of HIV-AIDS:

- ✓ From 1986 to June 30, 2013: 7682 Cases
- ✓ The transmission is heterosexual, in other words that the lady is by and large adulterated with her husband in their homes: 84.1%
- ✓ AIDS influences ladies to an ever increasing extent: 49%
- ✓ 500 to 1000 youngsters with AIDS are under 15 years
- ✓ In Morocco, we have 10 new diseases/day and 4 deaths because of AIDS/day
- ✓ The vicinity of 120 and 150 youngsters are contaminated with HIV every year, either 1 child for each of the 3 days.

As specialists in the zone of science and innovation and as indicated by those insights, we chose to proceed similarly. We have attempted to outline and build up an intelligent system, able to expand the inhabitant's awareness and to be their friend and guidance, in the mission to help the general public to safeguard the following ages associated and connected to the technologies.

- ✓ To ensure that our system turns into an acculturated system, we intend to adjust the substance of the awareness teaching to the social circumstance, which fits every inhabitant in light of his locale, sexual orientation and age and in addition his emotional practices communicated throughout the web based training.
- ✓ We can't question the shortage of mentors in the field of sexual and reproductive health; therefore, our answer will be a key component to make an aggregate conscience.

3. Boundaries to The Confinement of The Present Awareness Information System

Awareness information system is the core of all associations in charge of effort and education; keeping in mind the end goal to present the best information, it ends up vital for improvement, a superior capacity and great administration.
Awareness information system has a few characteristics, however it is as yet restricted.

- Absence of emotional states communicated throughout the training.
- Not thinking about the way of life and the customs of the distinctive areas.
- No conveyance by age, sexual orientation, level of learning and language acquired by people.
- No vitality trailed and the overhaul of the training content.
- Not considering the awareness of the visually impaired.

4. The Significance of Emotional State at The Level of Awareness SRH

Recently, the computerized world has experienced a development which has permitted to specify and to enhance the information and communication technologies (ICTS), specifically in the learning and teaching in order to make correspondence more intuitive and successful.

Feelings assume a urgent part in getting information and the statement of person's conduct. A few studies into different fields are intrigued to oversee and understand the inner states of people, for example, the training, the intuitive recreations, driving, and the security field [2] [3].
It is perceived that individuals are diverse as far as societies, learning, sentiments and desires. For the most part, the feelings give information on the person's conduct and their psychological states:

- Interest
- Concentration
- The feeling of fulfillment about the preparation content.
- The absence of understanding.

Every one of these feelings can be communicated by the person's outward appearances, and also different measures that are seen and changed starting with one individual then onto the next [4] , for instance a redness that demonstrates the timidity, the patterns to respiratory and heart which express the fright and fatigue.

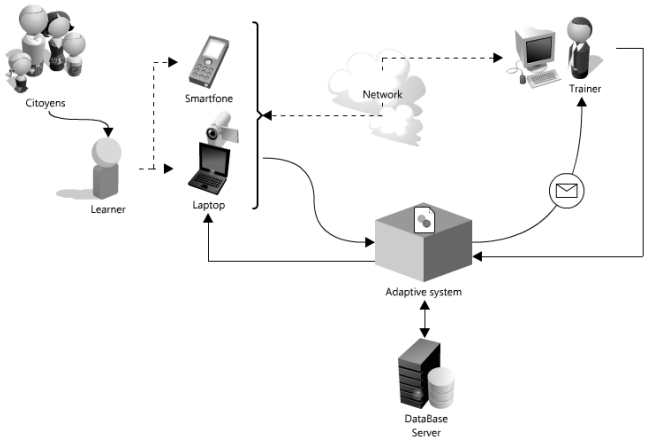


Figure 1: Online communication between trainer, system and user

The mentor tries to see and understand the student's feelings with a specific end goal to transmit information in a pertinent way so the student will be cosy. We will probably adjust the substance of awareness training in SRH in a satisfactory path to the necessities of every person [6], along these lines enhance the nature of the interval training, advance, improve and give a more viable and open correspondence between the teacher and the inhabitant.
Once the student associates with the training program through his or her PC or Cell phone, the accentuation is on two stages of conversion; initially, the student will enter his own subtle elements:

- Culture
- Gender
- knowledge level
- Language mastered

These information shape the premise which will enable the system to decide and to adjust the preparation content as indicated by the ethnic profile, and also, throughout the preparation, the system will consequently get the inner states of students and after that these will be passed to the teacher if there is an intercession on his part.

5. Case Study

Present awareness information systems are not versatile to the client's requirements. Hence, we look to set up an information system of awareness versatile to specific criteria.
This sort of information system stays as the best for the awareness and great training, to transfer effectively and briefly pass on information as per the idea of the information to the involved clients, while appreciating the measures of the training access.



Figure 2: Decomposition of the interactive system whose content is proposed by the Pan-African Organization against AIDS (OPALS)

A. Plan of an expert system

The innovation of an expert system asked for a principal methodology to the humanities and sociologies.
As a result, it doesn't remain a technique to constrain a certain expert's methodology, however, the creator is attempting to accomplish three levels inside the mass of understanding:

1. Structuring level
2. Conceptual level
3. Cognitive level

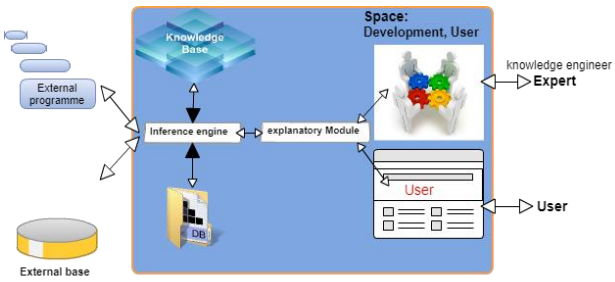


Figure 3: Design of an expert system

B. Materials and techniques

Activities involving the information systems ought to be handled by the executive management. It is the special case which can give the driving force, realizing that the organization's methodologies and its pertinence and also the precision pass by the reactivity limit of the information system.
Keeping in mind a few elements, for example, the development of the world and the change at the organization's level, this needs the foundation of an exquisite information system dissimilar to the previous information systems.

1) Knowledge masterminding

During the procurement of information, it is approximated by the utilization of meetings that we can produce an extremely finite number of rules by day for the foundation of a system of regulations [1] .
The Knowledge masterminding would inspire the systems to control information on PC.
The attempt is centered around:

- Recognizable proof and Acquisition
- Modeling and Formalization
- Usage
- Management and Support

2) Specialized examination of facial expressions

The objective behind the recognition, extraction, and grouping of facial highlights is adjusting the awareness preparing content as stated by the emotional states and practices communicated by online students.
The strategies:

- IntraFace: Face following and identification, it gives a functionality which expects to track and tell if the face has been detected or not.
- Local Binary Pattern (LBP): extrication and identification of the trademark qualities of face.
- Support Vector Machine (SVM): categorization and combination of the emotion's qualities.

6. Discussion

The foundation of a versatile and specialized information system permits the regard of various back considerations in Morocco as indicated by a specific amount of criteria, for example, the emotional state, age, sexual orientation, region, culture and language.
This information system brings issues to light and exchange the information to individuals all the more effortlessly, contingent upon the sort and the way of life of every client, and additionally it treats the clients as indicated by particular classifications and as stated by their connection [7].

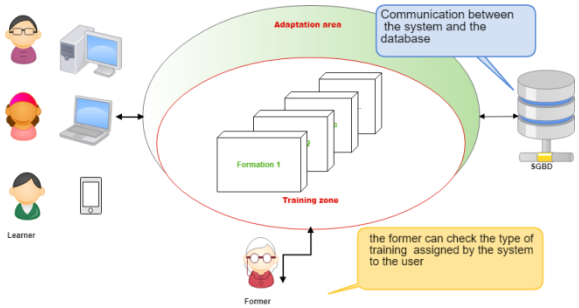


Figure 4: The architecture of the adaptive system information

Communication between the system and the database

The former can check the type of training assigned by the system to the user

Undoubtedly, the foundation of this new information system permits the enhancement of the quality and legitimacy of the outcomes[9].[10]..
Our answer presents numerous points of interest:

- The regard of the way of life and conventions of every district.
- View of emotional states communicated throughout the preparation.
- The constitution of a few languages, which aids in the comprehension of all clients.
- Adjust the training to a few parameters.
- The checking and overhauling of the material.

Keep in mind that we intend to enhance our information system to lift the consciousness, of the visually impaired.

7. Conclusion

Currently, the information systems are regarded as a powerful apparatus to achieve philanthropic services, for example, awareness; Nevertheless, practically speaking the greater part of the information systems [11]. that planned to raise the awareness of the general population are not versatile, which makes the real barriers so as to accomplish the coveted target.
Indeed, this is a test since awareness through the information systems includes essentially the adjustment of the material with the

coveted target. Subsequently, this is the purpose behind which the present-day associations [12]. are pushing toward the adjustment of information systems planned for the awareness, moreover the greater part of the targets is put at the level of this venture will be done and connected in the new system with the exception of that it welcomes the research.
Once more, we are keen on the awareness of a specific fragment of the society, which involves individuals with visual incapacities; hence, the inquiry that appears to be very critical to us is how to set up an awareness information system devoted for the visually impaired individuals?

8. Future Scope of work

The next steps we ought to take should include sensitizing the population so that they should understand the true meaning of healthy sexuality, provide the population with precise policies and guidelines for them to follow. There is also a need for information and assistance for parents and staff , we should to fight for the rights of all youngsters to be informed and safe, create versatile awareness systems so as to accomplish coveted targets by pushing toward the adjustment of information systems planned for the awareness and finally we ought to create an awareness information system for the blind.

Acknowledgment

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