

# Development of a Native Mobile-Based Folktales Application

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**Abstract:** Globally, there has been an increasing emphasis on culture and cultural heritage of a people. There are scanty records of different cultural values, indigenous knowledge and heritage material especially on Africa unlike the developed countries of the world which have the highest contribution of their culture available electronically. How can Africa ensure that its heritage resources are adequately protected for today and tomorrow's societies? Story telling is one of the intrinsic components of many African cultures. Folktales are told not only for fun and amusement, but also to educate and teach values and morals in the society. This paper presents a mobile application that is developed on the android operating system that tells stories which are based on animal characters. The application provides the option for voice illustration that is rich in image content which is done in Yorùbá Language and translated in English Language.

**Keywords:** Folktales, android, storytelling, african culture, postmodernism, digital information, oral, heritage, ICT

## 1. Introduction

Culture is the entirety of learned, socially transmitted knowledge (beliefs, such as customs, norms and values) and information are delivered by words of mouth (orally) from the older generation to the younger generations, material objects and behaviour. It comprises the ideas, value, customs and artefacts of a group of people (Schaefer, 2002). People are shaped more than a single culture and a one-directional system of cultural preservation and transmission cannot place any culture on the global link. The project of preserving the rich African cultural heritage remains a topical issue. According to Cambridge Advanced English Dictionary, "Folktale is a story that parents have passed on to their children through speech". Folktales are usually imparted through spoken word which is then passed by word of mouth from one generation to another generation. Ogundele (2000) opined that oral tradition is a body of information that covers a geographical area which bothers on the history, culture and the environment of a people. Many African folktales use animals who act like humans in order to teach a lesson

Nigeria is a society with abundant rich cultural heritage that are scattered within the diverse ethnic nationalities. These cultural heritages include language, marriage rites, burial rites, birth rites, dressing, greeting, music, folklore, religion, and other tangible cultural monuments, natural sites and cultural landscapes. Some of these cultures have died due to western cultural influence and therefore needed to be revitalized and uploaded in the net if those. The Yorùbá people live mostly in South-West Nigeria. In the current population analysis of Nigeria, the Yorùbás are one of the three main ethnic groups that make up Nigeria. They can also be found in neighbouring countries and the language is widely spoken across South-West, Nigeria.

Folktales stories are frequently used to teach moral values and customs of the people to the younger generation in order to preserve cultural heritage. It is important to answer the question of and to identify the roles Folktales play in the heritage of the African culture. Storytelling is a method of recording and expressing one's feelings, attitudes and responses of experiences and environment (Gbadegesin, 1984). Over the years, Folktale tradition has lost its influence to the modern western culture. The process of expanding culture is a subject that has attracted the attention on cultural custodians for many centuries, but technologies have increased the speed and have also stretched the distribution of cultural elements beyond communities and nations' territorial boundaries. A common character in African folktales is the trickster - usually an animal who is smaller in size than the others and who uses his wits to outsmart others. Sometimes the trickster is very funny, and sometimes he or she is not likable at all.

African people are rich in oral traditions and cultures and consequently have esteemed good stories and articulate storytellers (Chinyowa, 2004). The introduction of western education has some considerable impacts on some traditional practices in the curriculum of literature in which much emphasis is placed on European literature based on the wrong assumption that Africans had no literature before the European incursion on the continent however, ancient writing traditions have been in existence in the African continent (Achebe 1958).

Folktales suffer some neglect in the process. Some Europeans that eventually did the collection of African Folktales did so in foreign languages like English, French and German with no relative objectivity.

As the world around us is becoming complex by the day and technology keeps advancing, reality is changing or mutating at a high speed, therefore, language and images to represent such reality must continue to change down the line. In the process, boundaries are bound to evolve and re-evolve. Okoro (2010) observed that rich African cultures stands on the fence of extinction since most of the discoveries and cultures were not recorded on any form of Information source.

The position of Folktales in the development of African culture places a demand on the elders to fix beliefs or ideas in the mind of the younger generation by repeating the stories and the elders could achieve the passage of the cultural heritage to the young minds through the tool of Folktales. In this Information age, such stories can be expressed through the following forms of media such as:

1. Text
2. Audio
3. Animation

One popular story telling tradition on the Nigeria screen in the late 80's was the program titled "*Tales by Moonlight*" and it was broadcasted by *Nigerian Television Authority (NTA)*. Based on the title, the program was set in the evening and stories were told in the village square with usually the story teller in the middle and surrounded by the listeners or those willing to hear tales under moonlight before the emergent of information technology. The goal of postmodernism is the change in human society and this change has affected cultural production and consumption such as Folktales (Sesan, 2014).

As technology advances, the traditional settings of storytelling such as Folktales are fading away but this rich cultural heritage can also be preserved by adopting technology. The advent of cartoons and modern film industries in our societies have replaced the art and crafts that was known to keep the children busy. Currently, we have a lot of foreign influence on our long celebrated African entertainment which is making kids to watch war stars, cars, Shrek rather than folkloric television program. Therefore, it is imperative for stakeholders in research community to develop a framework or model of good story plot that accommodates the socio-cultural values for educating as well as entertaining the audience. This will help in preserving and popularizing Yorùbá folktales in our society and it ensures the continuity of folklore for future generations. This study is targeted at reviving and redeeming the declining the folklore tradition in the Yorùbá context.

Information and Communication Technology (ICT) has come to stay and will continue to influence the way things are done, even in the cultural setting of Africa. ICT can be helpful to gather, process, store, retrieve and transmit information down many generations (oral culture) (Umeluzoret *et al.*, 2014).

### 1.1 Statement of Problem

Today, the bonds that existed between the father and children, elders and youngers during the moonlight hours through storytelling in form of folktales, fables, myths and proverbs is no longer given a place for cultural promotion among the present day youths. If the trend continues without any attempts in the research community to preserve these cultural values, in no distant time, Africa and African people will totally lose focus of the cultural heritage they inherited from their ancient leaders. There is no escape route for Yorùbáfolktales about the extinction threat that beams on Africa culture. There is few or no existing technology integrated tool in the public domains that promote Nigeria and particularly Yorùbáfolktales tradition.

If folklore tradition must be preserved for the generation yet unborn to experience, there is a need to explore technology by developing a native-based mobile application that promotes our socio-cultural values to our children. Madej (2003) reported that children and youths could be helped to cope with the technological world and the knowledge of their native tradition in form of folklore and fables through a body of digital literature

Children naturally prefer speaking English Language to their native language and this has brought about a decline in indigenous moral values. Embracing the technology of native-based mobile application presented in this study will guarantee the passage of folklore traditions to future generations and it creates a virtual community of a story teller among the children for the continuity of Yorùbá folktales. Therefore, the paper is geared towards how to better communicate and attracts the younger generation to culture and heritage.

## 2. Literature Review

As the world is turning to a global village, there is much influence from the Western culture on the ancient African cultural values that raises the question "what will happen to Africa's rich and diverse culture and people's heritage in many years down the line?" in the lips of custodians of African culture. Owinyet. *al.* (2014) pointed out the need to create sustainable strategies that preserve the traditions and indigenous values of the people of Africa. The study promoted the use of social media in preserving and disseminating indigenous knowledge.

In Africa, cultural values are transmitted from the elderly to the younger generations orally. This is done in form of Folklores, Folktales, Stories and Songs among others. Ola and Adegbore (2015) noted that the oral medium of cultural transference to the younger generations is flexible and therefore, it faces the threat of being lost or forgotten. The study noted that preserving the rich cultural heritage of Yorùbárace in Nigeria calls for the attention of the custodians beyond the oral tradition. Kwameh (2007) highlighted that African values have been distorted by the acceptance and over-reliance on Western education orchestrated by colonialism. The study proposed exploring other ways of preserving African cultural values for the benefits of the younger generations.

Ugbam et al. (2014) drew the attention of the African communities to the negative effect of globalization on their rich cultural heritage. The study noted that indigenous cultures will continue to go into extinction until we believe that what is foreign is not better than our local heritage. The study noted that so many African and particularly Nigerian cultures will become the admiration of international communities if properly harnessed. Onyima (2016) decried the endangered status of Nigerian cultural heritage because of foreign influences. The study noted that preserving Nigeria cultural heritages has a lot of economic benefits to the country.

Msuya (2007) argued that African indigenous knowledge is at the verge of extinction if concerted efforts are not made to preserve it. Any indigenous culture without any track formal and written records faces the challenge of how to effectively transfer it to the next generations. In the African settings, Folktales serve as means of handing down traditions and customs from one generation to the next. The YorùbáFolktales are numerous; among these are stories, riddles or fables, histories, myths, songs and proverbs.

Tuwe (2015) noted that the African oral tradition paradigm of storytelling is an effective social research methodology. The study highlighted the roles of African oral tradition on employment-related experiences of New Zealand African based communities because as individual participants and focused groups members share their stories and employment related experiences, it brings out their views, thoughts, feelings and experiences in a way they are familiar with.

Over the years, Folktale tradition has lost its influence due to the current wave of technological advancement of our time. Modernization has had its place in taking education and entertainment away from the family and the folk community and it has given these functions to formal social institution as the school and popular media. Contemporary parents rush out in the morning, work till late hour and come home tired. Parents have lost the art and interest in telling stories to their children. Television and other home grown entertainment outfits are also providing convenient alternatives. Attention has now shifted from the common culture and traditions within the African society shared during the moonlight night tales, to the urban centres.

Nwegbu (2011) reported adopting technology to expand, increase the speed and broaden the distribution of cultural heritage beyond community borders. Many Nigerians especially, the young minds are developing with inadequate knowledge about the culture of the country. Storytelling and Folktales are very important in different cultures across the world. These stories help the younger generations remember their histories and pass down their traditions. Storytellers are a link and a reminder of the values on which African communities were built and for which many African leaders strive.

In most cases, African storytelling is set up in an environment where the storyteller and the audience interact based on their rights and obligations (Soyinka, 1978).

## **2.1 Four Key Elements in African Storytelling**

- i. Entertainment is part of African storytelling.
- ii. Morals and instructions in proper conduct can be found in African storytelling.
- iii. Beasts, plants and nature are part of the African storytelling process.
- iv. African storytelling can teach historical lessons.

Chinua Achebe in his book, *Anthills of the Savannah* (1987), explains that a story does many things. It entertains, informs and instructs. The stories support and reinforce the basic doctrines of the culture. Adelowo (2012) opined that storytelling has made African women to become custodians and conduit of African culture in the country of New Zealand. Many African folktales use animals to act like humans in order to teach a lesson. Other tales explain why an animal looks or acts the way they do, or how that animal came to have a specific character trait. A common character in African folktales is the trickster - usually an animal who is smaller in size than the others and who uses his wits to outsmart others. Sometimes the trickster is very funny, and sometimes the trickster is not likable by the audience at all.

The infiltration of western cultures through globalization to African countries poses a threat of extinction to the ancient cultural heritage of these communities. Mabelle (2016) noted that the dominance of foreign contents in Nigeria media is drifting the youths and the teen age populace away from following the long celebrated Nigerian cultural values. It is therefore important to devise a strategy of capturing these young minds through a tool that is easily accessible in their cycle.

The development of a native mobile-based folktales application can serve as a tool for passing the folktales content of African culture to the younger generation in an undiluted format. Sesan (2014) argued that Yorùbáliterary and cultural arts (including folktales) have not harnessed the social and technological developments brought about by postmodernism for generational convenience. The diversity and richness and African cultural heritage can be promoted and preserved through digital technologies (Ronchi, 2016).

### 3. System Design

As presented in Sesan (2014) and illustrated in Figure 3.1, in typical traditional Yorùbásetting, the relationship between the performer and the audience in the performance space of Yorùbáfolktale is triangular and corresponding. The model of the traditional performance space of Yorùbáfolktale is given in the framework below:

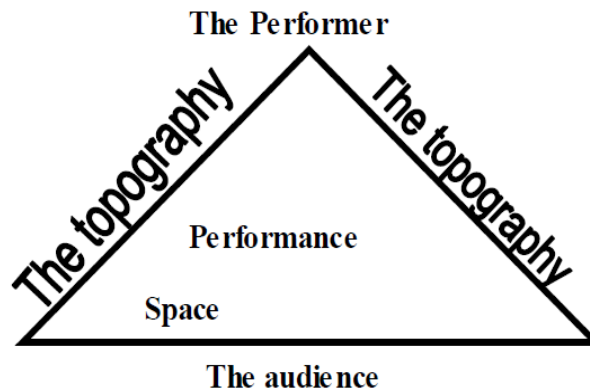


Figure 3.1 Model of Performance space of Yorùbáfolktale.

In manipulating the performance space, there is a need to utilize the body and voice of the performer. The performance space is collapsible therefore; it offers the performer and the audience the opportunity of physical contact and verbal exchanges.

Figure 3.2 presents the architectural design of the system and its operational flow. At the user interface level, the user will select the particular operation to be performed. The synchronization of the subsystem takes place by pulling the images and the sound from the internal storage. The diagram below illustrates the architecture of the Yorùbánative Folktales application.

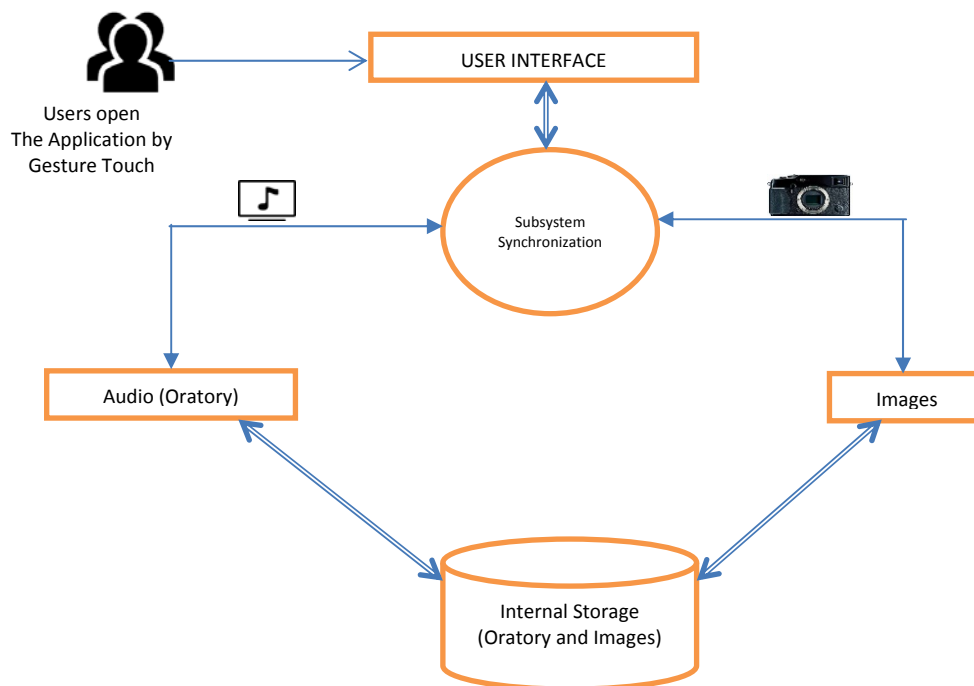


Figure 3.2 Storybook Architecture

### 3.1 User Interface

The user interface provides the options for the user to from and after selecting an option, it pulls the images and the audio from the internal storage. The user interface orientation is in landscape format.

### 3.2 SubsystemSynchronization

This layer has a component that controls the images and the audio. Basically, the subsystem synchronization makes it possible for the image and the audio to run simultaneously in order to provide an accurate timeline.

### 3.3 Audio (Oratory)

Music and movement are big parts of traditional African storytelling. The audio is a recorded narration which tells the stories and the audio format selected in the application is MP3.

### 3.4 Images

These are pictorial images that are used for animation in the JPEG selected format.

### 3.5 Internal Storage

The internal storage is a file system where images and the audios are stored without using any external database.

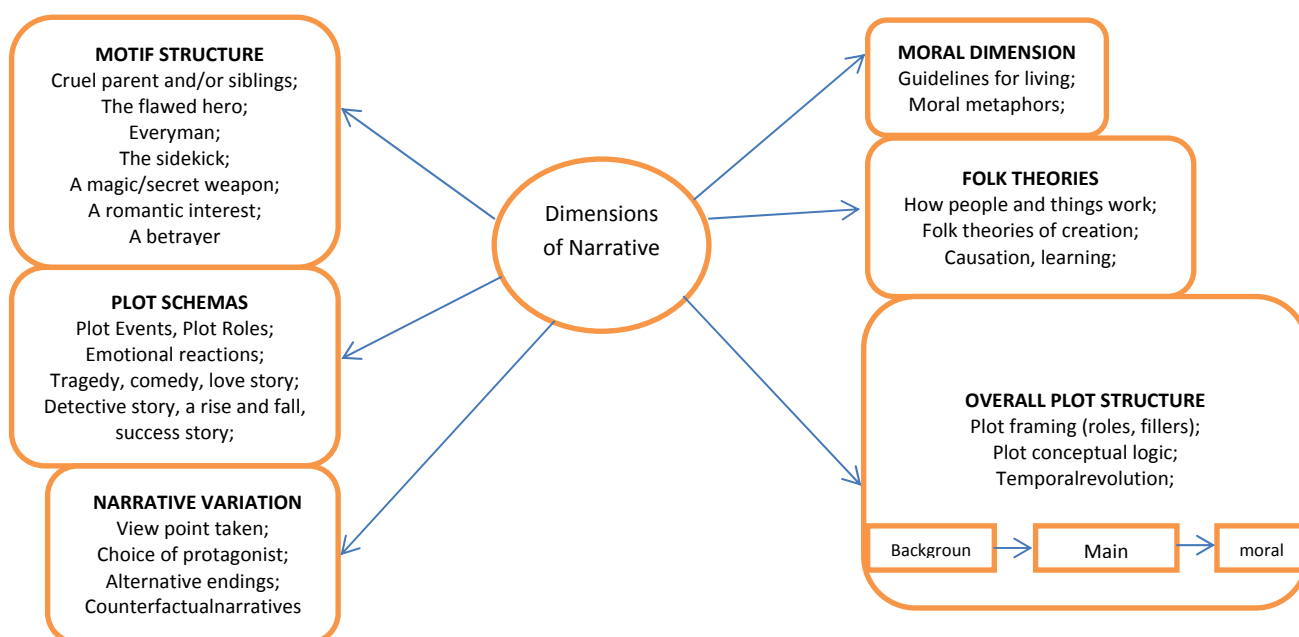


Figure 3.3 Narrative Plot Roles

Figure 3.1 is an illustration of narrative plot roles in storytelling. Narratives have a high-level organizational structure that in typical cases, has a plot roles (E.g., Protagonist, Helper), a Background, a Compilation, a Main Event (E.g., a struggle, test or crucial event), a Denouement (that is a resolution), the Consequence and the Moral. However, the plots are ordered differently in actual storytelling.

Each specific plot has events that fill in the parts of the overall plot structure; that is, a Background, a Compilation, Main Event etc. Each plot has plot roles and conventional emotional reactions from both the sides of the storyteller and the audience to each specific plot event. There is also a correlation between the moral lessons and values portrayed from the story and their emotional reactions.

## 4. System Implementation

The software and hardware requirements for the system implementation are stated below. The implementation platform is Android 2.3 Operating System, Java Programming Language on:

- Android studio SDK
- GenyMotion Emulator
- Adobe Photoshop CS6
- Sound Forge Pro 10
- Adobe AuditionCS6



#### 4.1 System Testing

After coding, it is important to test each program function correctly. This stage is to measure the quality control of codes and majorly the most important function of this stage is to detect errors. Therefore, measures were taken to check for errors in the application with the help of some features provided by Android Studio called clean. The first step in testing the application is to compile the program using a language grammar error. This is to ensure that the program executes properly.

#### 4.2 Pictorial Description of the Application

**Main Page:** the main page is the cover page with the title and buttons for selecting what operation should be performed. The home screen has three different buttons which are:

- Read to Me:** the button when is tapped, brings a narrative story synchronized with the images.
- I Will Read:** this button brings out only images.
- List Icon:** the icon provides the option for use to go online and view different kind of stories.

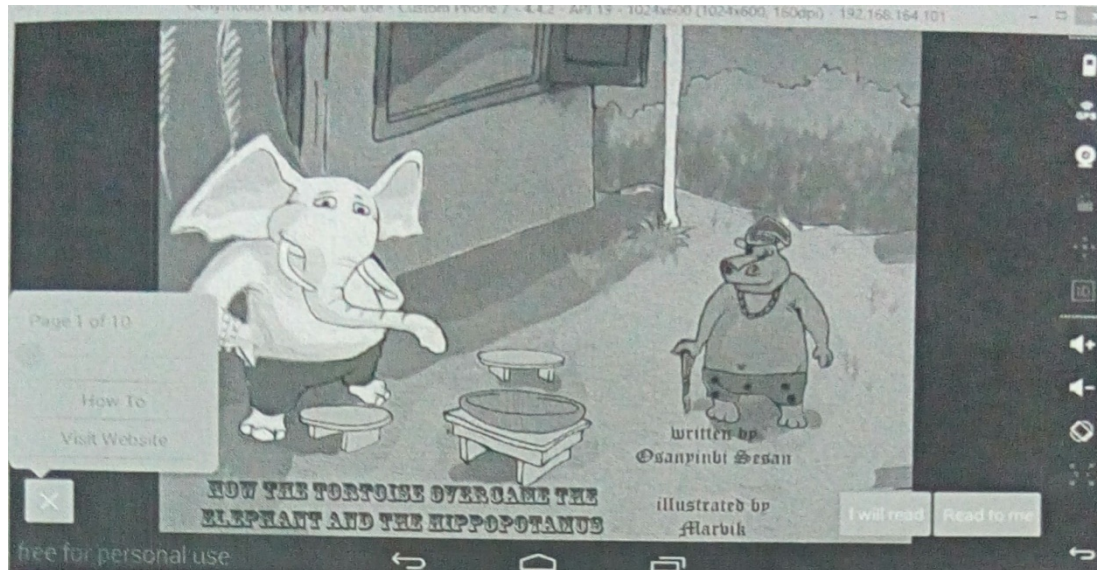


Figure 4.1 Application Home Page

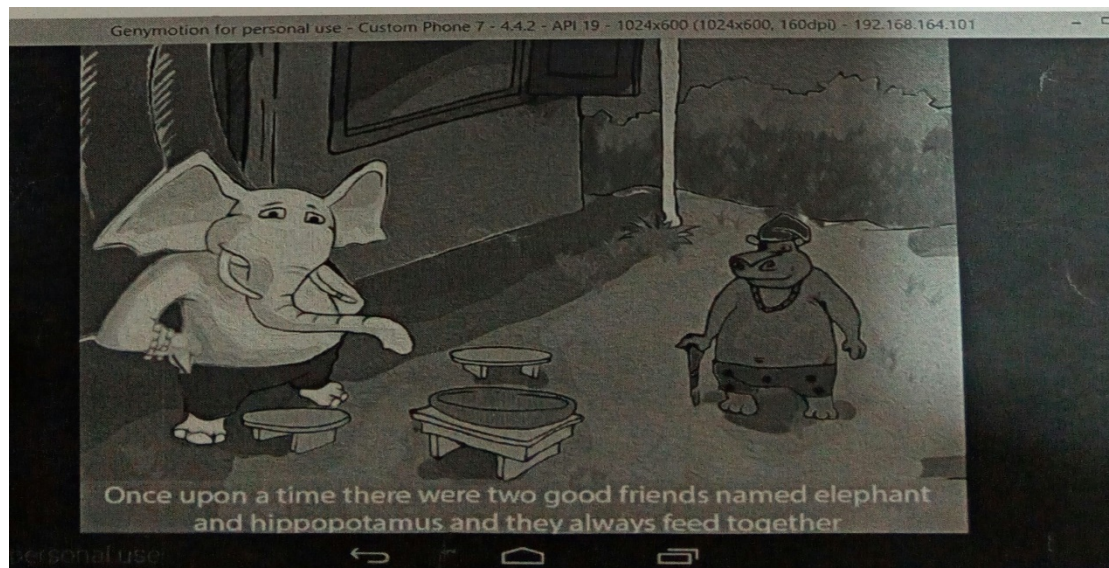


Figure 4.2 Story Images

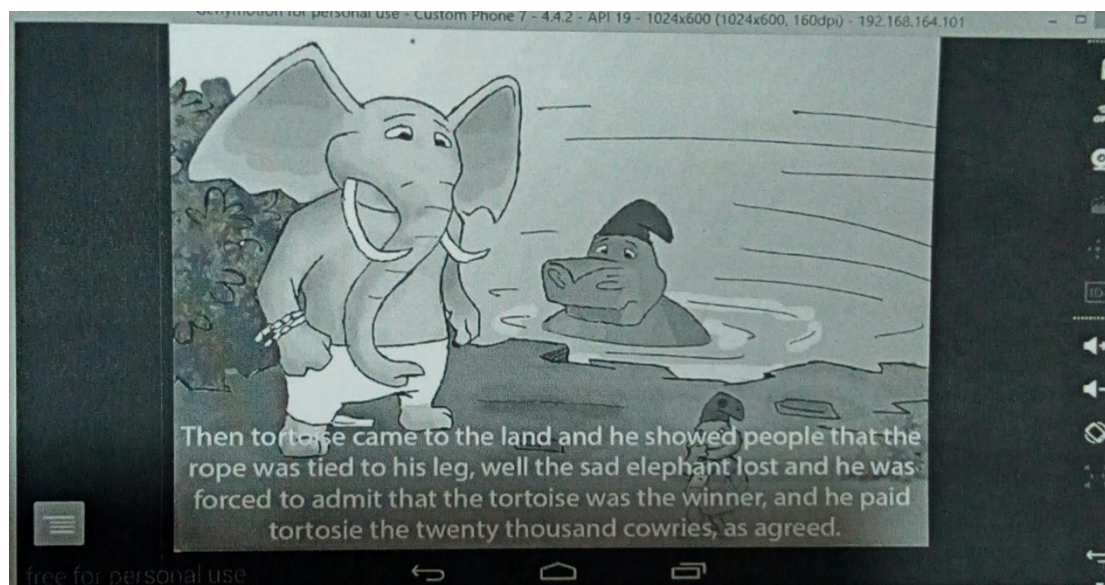


Figure 4.3 End of the Story Page

*“In one’s mature years, one forgets the books that one reads, but the stories of childhood leave an indelible impression and their author always has a niche in the temple of memory from which the image is never cast out to be thrown into the rubbish-heap of things that are outgrown and outlived”*

Howard Pyle, 1911

The only remedy in ensuring the stability of culture across generations is for the authorities of change (government) to repackage and re-inculcate absolute values through the use of libraries, mass media, and advanced information technologies to counter negative changes that are emerging today. Therefore very few human communities will neither want to reject technological changes or globalization, nor will they want to return to the old pattern of community organisation especially now that new pattern has emerged to suit their immediate needs.

## 5. Discussion

The mobile application presented in this paper was compared with the work of Aládéet *al.* (2016) and we discovered that the animation model presented in the study did not make provision for text or audio selection. Any animation model without the corresponding text information passes limited information to the viewer. Therefore, the mobile native folktales developed and presented in this paper is user friendly, rich in text, image and audio contents and it can serve as an effective tool for indigenous knowledge transfer to the younger generation. We know that you will have fun while learning a lot about African culture, storytelling, and literature - the very cultural heritage that gives indigenous peoples their identity and a renewed hope for the sustainability of traditional cultures. Indigenous knowledge can now be preserved through documentation rather than demonstration.

## 6. Conclusion

The study establishes that our local heritage has been given less priority because of western civilization and closely examined the role digital technology media plays in maintaining African traditions in form of Yorùbá folktales across generations. The adoption of this native mobile-based Folktale application will help the Yorùbá youth in African societies to remember and preserve their cultural heritage. The system will also provide a Yorùbá narration voicing and a subtitle text which is written in English Language. In this study, a native app for Nigeria Folktales was developed on Android Operating System which has made it possible for kids to learn and know about their culture by using Folktale stories on their smart phone devices. As research continues, efforts can be directed in introducing animation into the system for active and passive interaction with the users. When we appreciate what we have, then we make efforts to preserve it for posterity. In view of the contending issues, impacts and challenges, there is need for the government to revive traditional and popular forms of a people’s expression, provide training in the use of ICT for documentation, digitization and preservation of cultural heritage.

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