The case of a database dilemma

Abstract

India has a number of government owned drama theaters such as the National School of Drama (NSD) in New Delhi and few privately owned such as the Prithvi Theaters in Mumbai. Dr. B.V Karanth started a Drama School in Bhopal. Karnataka government, wanted something on similar lines in Mysore. Dr. Karanth set up Rangayana in 1989. The use of IT / IS solution for the Organization is the focus of the Case. The case intends to draw out the pertinent details in designing the structure of the database and also the performance tweaking required as the velocity, volume and variety of data goes up. A best design strategy and an appropriate tool required to address it, is what is attempted to bring out from this case.

It was late winter, in the year 2004, in Mysore and the trees shedding their leaves. The Director of Rangayana, Dr. Chidambara Jambe, is early to his office and is in deep thought. The State Secretary from the Ministry of Kannada Culture, Bangalore had just called him. The Director was asked by the Karnataka State Government to give a report on the income and expenses of Rangayana. Dr. Jambe is worried and wondering if Rangayana has proper and structured records of its income. He calls his secretary-cum-accountant Mr. D. Mani in his small office.

He says "Mani the Secretariat Office of Kannada Culture Ministry called up now and asked me to submit the year's Annual Income & Expenditure Report."

Mani says "We do have an account of the expenses, but income from certain quarters, such as donations have not been noted on appropriate dates."

Introduction

To understand the current dilemma faced by Rangayana, one needs to understand and explore the historical facts associated with the growth and development of Rangayana. Rangayana

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was formally constituted in the decade of 1980s. But the name Rangayana was not christened to it then. Rangayana formally came into being in February 1989. It was the brain child of late Dr. B.V Karanth. Rangayana was formally recognized as an institution of theatre and folklore culture by the Ministry of Kannada & Culture, during the tenure of Dr. Ramakrishna Hegde the then, Chief Minister of Karnataka State. It will not be wrong to say that Rangayana has imbibed Dr. B.V Karanth's imagination, vision, brilliance, dream along with the hard work of the artists, technicians and staff has blossomed into a beautiful place. Erstwhile directors of Rangayana Sri C. Basavalingaiah and Sri Prasanna, Sri Chidambara Rao Jambe have worked untiringly to build a conceptual basis to this institution and have extended its footprint and horizon in the world of art and theatre.

The Karnataka Government has allotted an annual fund for Rangayana. Rangayana initially did not have an office space. The basement car parking of Kannada Bhavan, the Government owned auditorium was converted to Rangayana office.

Rangayana constituted of a theatre training institute called *Bharatiya Ranga Shikshana Kendra* a professional Drama performing touring company, and a documentation and research centre called *Sriranga Ranga Mahiti* and *Samshodana Kendra* respectively.

Bhoomigitha, Vanaranga, Sriranga, and Kutira are the various stages where Rangayana hosts different performances. In 2002, in Mysore, the Repertory company started performing two times every weekend regularly at *Bhoomigeeta* theatre. Later in 2006, quoting the demanding schedule of artists the weekend theatre program was reduced to a day in a week. In addition to this, there were regular tours that were conducted throughout the state of Karnataka performing in different towns. Rangayana also makes its presence felt in the national drama festivals held at Bhopal, Mumbai and New Delhi.

In 2001, Rangayana began the theatre training institute. Teachers, social activists and amateur theatre personalities were provided with vocational training. The institute also offers a one-year diploma course in theatre. This Certification continues to be offered in 2017 successfully. For the state government employees, Rangayana conducts training in communication skills, personality development, leadership development.

The documentation and research institute hosts a library related mainly to theatre. A number of seminars and discussions is organized by the center throughout the year at Mysore. The library has of a huge collection of untapped folk proverbs, epigrams, ballads, images and

metaphors. Digitization of the collection by itself is yet another functional area that can make use of information systems.

Rangayana was visualized in way to be unique in its activities which were not similar to theatre companies elsewhere. Keeping this in mind talent scouting was done in innovative ways. The selection process followed meticulous method where the focus was more on the energy of the artistes with lot of enthusiasm in joining the Rangayana experimentation. Artistes were looked for in all geographical places of rural Karnataka. In the beginning Rangayana consisted of just 19 male artistes and 6 female artistes keeping in mind three things in one: a) a professional theatre repertory, b) a national-level theatre training institute and c) documentation centre for the theatre arts. Rangayana

History of use of IT

Although founded in 1989, Rangayana had its 5 computers only in September 2003. That they were networked and its resources shared, itself was an feat in those days. The State Government in its benevolent disposition, to the art and cultural society, had provided the then 'state-of-art technology' that was rather under-utilized in the Rangayana office, due to lack trained personnel and appropriate Information Systems available.

Other entertainment companies

Given that Rangayana was established in the Indian state that was a forerunner in Software export in the country it was not surprising that some bit of information technology intervention was available. Also it would not be amiss to mention here that Prithvi Theatres in Mumbai which was started 11 years before Rangayana, is yet to have a proper information system. Contrary to this *Cirque de Soleil*, a Canadian Circus Entertainment Company is using SAP modules for it HR, Logistics and Finance functions. In the beginning of the year 2000, *Cirque de Soleil* started to restructuring its IT applications. From standardizing the servers and work stations, using fiber optic cables, use of VoIP etc *Cirque de Soleil* went on to add more modules of SAP. *Cirque de Soleil* went a step further and centralized its operations, by implementing IBM's WebSphere Business Integration Server express Plus software in multiple phases.

The Director of Rangayana is slightly perturbed by Mani's reply. "But why? We do have computers and all the software necessary for it to store data properly. So what was done?"

Mani really does not know how to explain to the director that it is not enough to just have the systems. He tells "Sir, All data is recorded but it will take some time to bring to the format as required by the government."

Issue analysis

Rangayana has records of most of its activities. But, the data organization (in the computer) leaves much to be desired. As such, there is no methodology in which the data is recorded. Reports are generated, from the recorded data, for Rangayana to achieve it goals. Rangayana needs to furnish reports to the state government on the utilization of the government funds. Also Rangayana has to submit it annual revenue from the various cultural activities it conducts throughout the year. This is for taxation purposes.

Rangayana maintains records of the dramas and other related activities conducted by it. The necessary accessories and props for these activities are taken from its inventory and returned later. A record of these details, are also logged by the Rangayana office. Further Rangayana expects that the volume of log will increase with increase in screenings of drama. It also hopes that the State Government will provide proper encouragement and infrastructure for its office. There are a number of other smaller arts and cultural societies that regularly seek help from Rangayana for its annual cultural programmes. At those times Rangayana provides whatever help possible, in terms of human resources support, for example some mimicry artistes from Rangayana could perform their art in these societies or clubs for entertainment. Or Rangayana stages drama shows from specific literatures on request from these cultural societies. Rangayana maintains the data on such activities that it organizes.

The Director is thinking aloud, "Probably Rangayana should have had a better way of recording the details of its activities. Then we would have had no problems in getting these reports fast!"

Whatever data Rangayana has recorded is available in its computer system. Sometimes the data is recorded in a word processor and some other times the data needs to be recorded in a tabular manner hence it is done in such a fashion in MS-Excel.

The Director tells Mani "This year we are being a little more ambitious! As a theater group we are starting Chinnara Mela in four other districts of Karnataka State apart from our district. This will add to the data for the current year".

Rangayana organizes annual "Summer Camps" called the Chinnara Mela. These summer camps are organized at district levels with the help of the district administration authorities. The camp has been received very well by the school students, from the time of its inception in April 2000. Participants duly fill up admission forms and are charged an amount of Rs.500 / Rs.300 for the summer camp. They are trained different art forms. Now Rangayana proposes to spread its wings to other districts of the state. The participants are restricted to 300 numbers in each district. The fee charged is utilized by Rangayana for furthering its artistic pursuits. Other activities of Rangayana such as – Bahuroopi, Navratri Rangotsava, Havyasi Rangotsava, Collage Rangotsava all of them focusing on arts, culture, tradition, amateur troupes et al focusing mainly on social issues. A record of the Scripts shared between the Drama Schools were proposed to be made available on a Cloud-based repository, so were the costumes worn by artists, that were either hired or made-to-order.

Mani is also worried about the increasing volume of donations in kind given by various patrons of Rangayana. "Sir, we will need to work out a system, where we can record the donations of our patrons. Will these attract gift tax from the Government? This is being done now very arbitrarily", he says.

Although the need of reports for Rangayana cannot be categorized in the classic definition of Management Information Systems (MIS), the need for it having a MIS is imperative. At this juncture it is necessary to understand that the general perception of MIS of being a computer based system is not right, since computer systems only provide the technology component and not synonymous to MIS. Rangayana's need for Information Systems was long-awaited. Even though the technology component was not missing, the data available was not in a method to garner reports from it. The regular perception of MIS in any other industry is way off mark when considering Rangayana. Rangayana does not need fly-by-wire reports to take real-time decisions. Yes, but the reports that it needs are the basis for it tax returns submission. At this juncture what Rangayana needs is to do is, go on a preliminary fact-finding mission.

With the organization tasting success, comes the issue of finding effective ways to sustain the imminent growth that Rangayana has planned. Its task was to find efficient ways for IT to support the forthcoming growth as per its plan. Despite everybody doubting the role that information technology (IT) could play in an organization where creativity, imagination and

inspiration were paramount like Rangayana, it was imperative to convince the top management team that IT was critical to the success of the organization. Rather than simply automating existing processes, the use IT in supporting knowledge management (efficient handling of information and resources) to transform Rangayana by capturing, leveraging, and transferring knowledge across processes and across its projects. Presently Rangayana is looking forward to how IT can continue to add value to its business.

Sizing up the problem

Rangayana, like any of the other organization in the throes of seeking IT solution had to face the lack of understanding the use and the requirement of IT in entertainment industry. This partially constituted the issue of resistance to IT-related change at Rangayana. Much of the resistance from the staff members came from the premise that what role could information technology (IT) play in an organization that strived to preserve and nurture creativity, imagination and inspiration which was of utmost importance to it. Some employees considered an information as useless and overpriced. In fact Rangayana should exploit this issue by focusing on it positively that will ensure the buy-in of the key stakeholders who are vital for the success of the change brought about Information systems to support and bring about a source of competitive advantage at Rangayana. This would help Rangayana to capture, leverage, and transfer knowledge across processes, across projects, across different Drama Schools in India. Another issue faced at Rangayana was on how to integrate and preserve data from various activities such as scripts, images, videos, sketches, notes and so forth for reuse to inspire future creativity. There are 2 issues to contend with; first is the issue of data integration and preservation of creative activities at Rangayana, especially the on-stage drama recording and the script sharing process; make-up process and making of plaster props. Information about these were stored in different MS-Excel files, making it laborious to manage all input and output patterns easily.
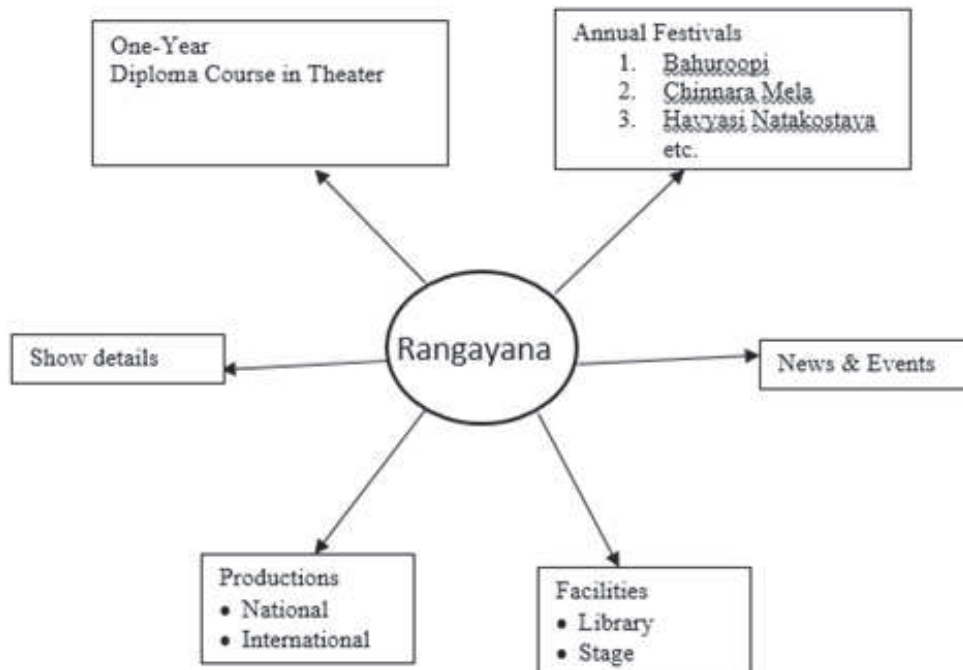
Figure 1 : Rangayana – Functional Activities

Subsequently, loss of information was inevitable since it was not available to others and not updatable by who use and need it; second it was very cumbersome to manage and retrieve the information that were in different forms such as the structured and the unstructured. The platforms and frameworks required to retrieve the different types of data and information needed to have a well-thought Information system to be put in place. Traditionally in Rangayana its daily functions and procedures were recorded on a standard form and stored in large folders that occupied large physical shelf spaces. Previously, information such as the ones described above was available in those Drama school which inhibited the way the data and information was located, shared and retrieved as required. Early on in 2003-2004, Rangayana dis have its Library automated to a very limited extent with Koha –the integrated library system (ILS).

Possible solutions & recommendations

While the case started with the small issue of submitting reports to the government, Rangayana has come a long way from that, with a need of a platform to capture, store, maintain and retrieve information from its repository . The need of information systems is much highlighted

in the current times. For Rangayana this issue can be handled in different ways. Firstly, the organization could approach consultants with the idea of using IT to support the various activities that its under its umbrella. This is possible only with the consent of the stakeholders before proceeding to hire the consultant to implement the right solution. Alternatively, the organization can implement IT / IS using the brute force method to use IT to support the its various functions. The first solution is preferable given the fact that it would prevent needless tension caused by people who are reluctant to change.

The prominent issues faced by Rangayana is on how to integrate and preserve data from various activities such as stage shows, diploma, applications, diploma classes, annual festivals, suppliers etc. This arises from the fact that Rangayana has a very poor history of data management due to poor recording resources for capture of data. Also whatever processes at Rangayana uses IT / IS intervention, is independent of applications and systems making it difficult to be seamlessly access of data in an efficient manner. This may also lead to loss of valuable information eventually. This would make the Rangayana staff to be affected by the decisions to be make. The solution to this particular issue is so vital and critical because, if executed well it will extend as a solution for other issues with dirty data and loss of information that Rangayana may experience. The constraint this placed on make any consultant to understand the best way to capture, integrate, maintain and preserve data efficiently to support the organization.

An immediate solution that can be thought of, is to build a customized simple shared database enabled system could be used with prominence on ensuring that it is integrated with hardware and all the required software and running on a single platform so that every separate application that interacts with this system has a way of integrating seamlessly with it. Also the share-ability of the data/information with other Drama schools in India using Internet makes it easy for Rangayana. The other best suited IT / IS solution for this issue, given that it involves information/data sharing, capture, storing, retrieving, integration and preservation, is to acquire or develop an Enterprise Resource Planning (ERP) System to handle the information/data. For Rangayana, the first option is the preferred one, since the organization is quite unique that it will benefit better from customized application than standard multifarious ERP. This solution on the cloud with a good bandwidth will partially solve the problem for now. Most IT companies that offer solutions in the entertainment industry package with the media solution also in mind since media and entertainment for hand in KiwiTech Ltd, (see Figure 2.0) a mobile app solution company in the USA, has a unique complete end-to-end solutions to performing arts company such as Rangayana.

06
- Mobile based rewards & advertising programs

07
- TV promotional apps
- Movie promotional apps
- Book, music and movie branding

05
- Social networking applications
- Reference resources
- How-to-guides
- Personalized travel itinery builders
- Mobile games

01
- Professional creative content commons
- Hobby creativity programs
- Mobile video editing
- Animated story books

02
- Designer profiles
- Music artist discography
- Creative content distribution platforms

04
- Rewards & advertising platforms for live events
- Live sporting event play-along games

03
- Mobile ticketing services
- Rewards & advertising platforms for live events
- Live sporting event play-along games

Production Companies · Advertisers · Creators · Solutions For Entertainment Industry · Consumers · Artists · Live Audiences · Event Promoters

Figure 2 : KiwiTech's end-to-end solutions

(Source:kiwitech.com)

Critical to Rangayana is also its web presence. This would connect to the worldwide audience for the organization's IT and Knowledge Management, business sustenance strategy. There is the need to create the awareness of Rangayana to the overseas Kannada diasporas in order to expand its patron base and there by generate more revenue to sustain the organization. Another reason to do this is, the repertory tours around the State, hence there is the need to find a way to tell people about it, sell tickets and other details to them through this online presence that becomes a curtain-raiser, in preparation for the tour. These causes are mainly resources and related processes. With this the business of Rangayana will enjoy more advertising and recognition than when its activities were local and constrained by travel cost, geographical location etc.

A quick analysis of the strengths, weaknesses, opportunities, and threats (SWOT) of Rangayana can demonstrate to power the idea that good IT /IS fit can make it better to face the extraneous situations any organization faces – Threats & Opportunities -, and its own core features its Strengths & Weaknesses. The strengths of Rangayana are: It is backed by the State government; it has a fairly good brand name in the state of Karnataka with many years of experience in preforming arts; It has an innovative concept to reinvent the drama, by bringing the Shakespeare in vernacular, so does its staff recruitment among other things. Apart from this, it has an original concept that has both permanent and touring shows thus achieving production diversity. Its weaknesses are: Rangayana has poor information and knowledge management. It currently has no proper IT / IS can provide right information to the right people at the right time. Information does not reach the people; Opportunities: it can expand to new markets, merchandise, expand to more audiences around the world, diversify festival themes. Threats to Rangayana: At present there does not seem to be any, given that Rangayana has captive market not only in Mysore but also in the nearby places that it tours for performing dramas. Poorly managed resources can damage the growth of Rangayana, including knowledge preservation and transfer, competition from other type of performing arts is something that should not be ignored.

Current status

Today in 2017, Ms. Bhageerathi Bai, the current Director of Rangayana who graduated from National School of Drama, New Delhi in 1990 with specialization in acting, looks forward to a solution that can propel Rangayana to the next level with the use of IT / IS solution. The Organization has a good online presence with it website highlighting all its activities and annual festivals. The website also guides the user to fill an downloaded offline application form as prospective applicants for the One-Year Diploma. This process can be improved by having an online application form to fill and a payment gateway to make the necessary payment for the procuring the application form.

At Rangayana a complete makeover in the processes and activities is looked at, with the intent of implementing an integrated enterprise-wide information system. Integrating the existing short-sighted information systems with new process to be brought under the ambit of IT / IS is what Rangayana needs currently to be known as one of the first IT-enabled entertainment organization.
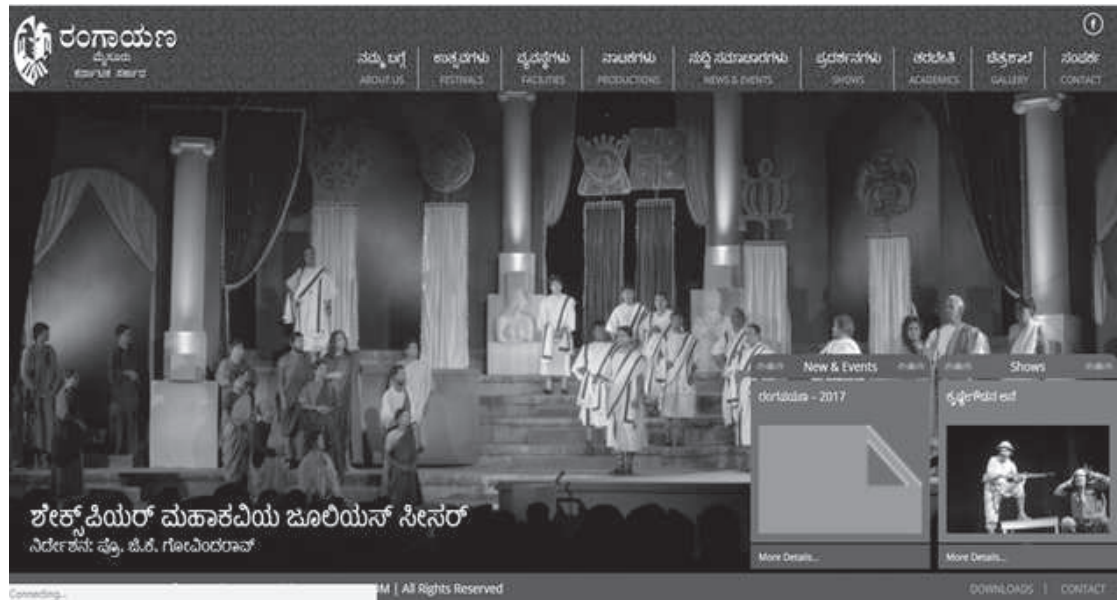
Exhibit – 1 – Rangayana.org - Rangayana Website

Exhibit -2 A Glimpse of a Stage – Where Bahuroopi festival is held

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