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Creation Mother – Avatar-based Indigenous Multimedia Intergenerational Culture Communication Project

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Many Australian Indigenous communities are losing significant cultural knowledge when young people are not able to learn the cultural stories in their own language. Thus the communities need to employ innovative methods to transmit cultural knowledge across generations. The cultural story of the ‘Creation Mother’ was captured and expressed in a novel new Avatar-based multimedia program, which overcomes important cultural restrictions, while promoting healthy child rearing practices and providing a motivational learning environment for the young mothers. The process of creating this story enabled numerous new important multiple literacy skills to be developed among the community members.

Introduction – Context

This case study describes a multi-level project in a remote Australian Aboriginal community, Gunbalanya, to address issues of literacy development, intergenerational transmission of cultural knowledge and improvement in family rearing approaches, all undertaken in a newly developed multimedia creation environment that is motivating and meets important cultural considerations with regard deceased members of the community.

The Project Dimensions

Loss of Indigenous Cultural Knowledge Between Generations

Given the cultural deprivation and difficulties of maintaining Indigenous cultural understandings in a country dominated by non-Indigenous perspectives and values (SCRGSP (Steering Committee for the Review of Government Service Provision), 2005, chapt.2), in many Indigenous communities and areas within Australia, the Indigenous people are trying new ways to preserve their language and culture. Even if the local language is strong the stories need to be explicitly told and preserved between generations. Many Indigenous people are preserving stories through paintings, but many are not written down in the original languages or in English. The Yingarna team wanted to research a particular story through the local community elders, and then translate the story into English for use primarily within their community. It was felt that an optimal approach to capturing and telling the story would be through an avatar-based multimedia authoring environment, as that environment would provide scope for promoting the desired community messages and provide for cultural knowledge transmission between the generations.

Young Mothers’ Need for Better Child-rearing Information

A key stimulus for this project was the recognition that better child-rearing information needed to be provided to young mothers in appropriate format for two important reasons. Firstly, the community realised that significant child-care needs existed in the community on which the Family and Children’s Services (FACs)
government department might be required to act. In the past FACs had removed children from their Indigenous parents if they were deemed not able to provide sufficient care and protection to them. Even though the policy of FACs has changed, so that removal of children from their families and the community is used only as a last resort, FACs wanted to demonstrate a more positive, proactive service to the community and this was welcomed by the mothers and the elders in the community.

The Yingarna team realised through meetings with FACs and community parents and elders that information about child nurturing and nutrition in Bininj (Aboriginal) way of life was important. The information collated through the Yingarna story could allow resources and tools to be developed about the nutritional value of western foods and traditional bush tucker combined in a synergistic manner enabling the young mothers use both to help to keep their children healthy.

The Yingarna team realised that current promotional information about nutrition and nurturing were not getting the message through to the community about healthy eating. The team realised that if they used the local community language and culture to promote nutrition and child nurturing through the development of posters, shirts and avatar-based multimedia package the message encapsulated in the text and voice recorded messages was more likely to make a significant impact on the target audience than previously used conventional methods.

The specific data on the children’s health in the community was depressingly typical of the Australian remote Indigenous communities in general (SCRGSP, 2005, chapt.3), e.g. Trewin and Madden (2005, p. xxiii) reported: “In the period 1999-2003, the mortality rate for Indigenous infants in Western Australia, South Australia and the Northern Territory was almost three times that for non-Indigenous infants. The death rate of Aboriginal and Torres Strait Islander children aged 1-14 years was more than twice that of the non-Indigenous children of the same age in these jurisdictions.” The data collected by the local health clinic showed that out of 156 children, 19 were stunted, 43 were underweight and 20 were malnourished and 6 children were anaemic. It was clear that problems with nutrition information were not getting through to young mothers who were struggling with many other problems. The current young mothers needed support and the team realised that another generation of young mothers would come soon and they wanted to act quickly to reduce the problem of malnourished, and underweight children.

Cultural Restrictions

When books promoting better health or child-rearing practices are developed in Australian Indigenous communities using photographs and names of community members they are usually acceptable and often better communications tools than materials produced outside the communities, but if some people die and their photographs were part of that book, then the photographs cannot be viewed in the Indigenous community and often the pictures are scribbled out or covered. In most instances the name of the deceased person cannot be spoken in that community and surrounding communities. So a way needed to be found to convey the same information without using individual faces or names, and ensuring that if any person-specific information was used, it could be altered easily if the person concerned died.

Community Literacy Training Needs

Another common concern in Australian Indigenous communities is the low literacy level of the community members (Trewin & Madden, 2005)(Collins, 1999; SCRGSP, 2005, chapt.3). Throughout the last few decades literacy education has been provided to Indigenous communities via a variety of means ranging from schools, vocational education and training (VET) and higher education programs (Collins, 1999). The intention has been to teach children and adults literacy skills that will enable them to adapt to and operate effectively in the Western society. VET training in the Gunbalanya community is a good example of multiple skills development. The Yingarna project was seen as an opportunity for literacy training, which would allow the literacy facilitator to train students in literacy and project-based training. The facilitator could train students in report writing, computer literacy development and to assist students to channel their ideas into implementation of the better health and child-rearing practice promotion programs.

When the project facilitator assessed students based on several unit competencies under the Certificate 11 in Community Services Work course some students’ levels of literacy were very low, at a grade one level. It was envisaged that by working through a staged literacy development program these students could start to develop literacy skills through literacy focused computer games, writing development, spelling days and reading days. So the
project could be regarded as core business for the literacy lecturer to participate and train students running the project. Through competency based training, students could also gain skills through visual practice and roleplay. Others students whose literacy levels were at a satisfactory standard, could be study buddies allowing confidence to grow among the students at all levels of literacy.

**Motivational Environment for Project Work**

The project had to be motivational for students, as workbooks and readings sometimes wear students out and are often perceived to be boring and tiring for the VET level students. In this case there were no appropriate and available text resources, as the group working to promote health and literacy improvements were still developing the tools to assist them in their workplace. Instead of using ready materials, developed outside the community, it was thought that involving the literacy students in developing child nurturing and nutrition resources within the project would motivate the students more than using ready materials. Giving the students the responsibility to run the project and have full decision making power and implementation opportunity in the project was thought to be more motivational as well as enabling them to create resources using knowledge that was always with them and around their local environment.

**Project Description**

In September 2003, a group of Gunbalanya community literacy students and community elders formed the Yingarna project team. The project was designed and developed to promote child nutrition and child nurturing in the local Aboriginal language. The project would be a collaborative approach, balancing Bininj (Aboriginal) and Blanda (Western) health outcomes, at the same time creating a sense of ownership over educative tools within the community. The alarming child-health data from the Gunbalanya health clinic (mentioned previously) was used as a warning that promotion of nutrition and nurturing for babies must change and that Indigenous culture must be included in helping young mothers to care for their babies. In 2003, the Family and Children’s Services (FACs) government department was approached by the community to work together with them for the protection of children and young mothers. The project team sought to adopt a new and different way to work with the Bininj families in promoting these outcomes. The FACs’ representatives came out to the community and held meetings with students and parents to design the support needed for a project that would promote healthy traditional child nurturing. The young mothers were already teaching their children, but the elders wanted the Bininj ways of nurturing to be told in such a way that the people in society could understand their ways of nurturing children. They wanted to convey a strong message promoting caring child nurturing. In most Indigenous communities child nurturing in Aboriginal ways needs to be specifically explained to young mothers and their children, for example in terms a story of a Mother who was a nurturer and teacher.

The project team and Batchelor Institute community studies lecturer (John Barber) met with the FACs workers and decided to develop a specific project to promote child nutrition and nurturing. This project would support young mothers through participation in activities in creating fun educational resource tools for the community to use in the future.

The first task was to set project goals and it was agreed to create or use a picture that would symbolise child nurturing and nutrition. The next task was to develop posters in language showing Bininj people hunting and gathering and a family sitting together as a family. The next step after that was to develop a book about the project during its stages. The final step was creating an avatar-based multimedia movie about the Yingarna story.

The students approached some elders about a story that depicted a strong woman who was a teacher, and nurturer. The elders told the students about Yingarna, the Creation Mother. The students thought it was perfect. This strong spiritual woman crossed the sea and land teaching children about culture, bush tucker, Indigenous language and giving children tribal names and totems. The team approached the community Injuluk arts centre, and there was the painting of Yingarna. Elder Thomson Yulidjirri, who has the community responsibility for this story and the associated artwork, gave permission to the project team to use the painting and the story to spread the message of child nurturing and nutrition in the Gunbalanya community.

In September 2003, the Gunbalanya community project team were awarded a grant and the support and resources at the disposal of the National Association for Prevention of Child Abuse and Neglect (NAPCAN) office. The grant supported a project facilitator, a project team and up to five appropriate elders to promote the project.
The Yingarna team decided to develop culturally appropriate resources for young mothers, who were part of the development. They felt connected with and understood these tools because they were written and spoken in their language. An example of this was the development of a number of posters. The posters were painted by Bininj people and the team developed messages written in the local language to be placed on the posters, so that the messages could be understood. The team realized that posters developed by outside organizations and written in English were not understood properly and were quite often boring in their design. Most of these young mothers’ literacy levels were of low standard, but they could understand their own language in written form. The team learned this from pilot testing the posters with the clients. The young mothers needed information that was understandable and relevant to their culture and ways of doing things. Stories are a big part of Aboriginal culture and that is how knowledge is passed on from generation to generation. Through this project the team decided to use modern technology to tell the ancient traditional Yingarna story in the local community language.

Over a twelve week period, the students’ level of literacy improved so much that they could plan and implement activities on digital showcasing, present at forums around the Northern Territory of Australia using PowerPoint and start to develop mini-scripts. When it came time to research the story of the Yingarna story, the students were ready to script the whole story. The next stage of the project training was to train students on a new avatar-based multimedia tool. A second NAPCAN grant was awarded to the team in September 2004 to further progress the innovative development of traditional prevention resources, this time using an avatar-based tool.

The students were excited at the fact they were going to learn to use this new technology (the avatar-based tool) that others in most communities and outside organizations did not know anything about. This new avatar-based multimedia authoring environment is called MARVIN and is managed by the ICD Unit (Interactive Communications and Development) within the Department of Health and Community Services. Characters used in the software are developed by the In-Chain company (http://www.marvin.com.au/marvin/home.asp). MARVIN stands for, “Messaging Architecture for the Retrieval of Versatile Information and News.” It is a software product designed to overcome the problems associated with the undesirability of communities seeing pictures, hearing the recorded voices or having to mention the names of dead community members. In the Australian Indigenous communities hearing the voices, seeing the pictures or the names of dead community members causes major cultural distress. In the MARVIN environment a number of avatars have been designed with characteristics of old or young Australian Indigenous males and females. These avatars have been rigorously tested in Indigenous communities, to ensure cultural suitability before being released in the MARVIN environment. These avatars can be accessed very easily in the MARVIN authoring environment, and they can be programmed to move, speak or perform actions. Constructing multimedia stories with the available avatar characters in MARVIN can be achieved after minimal training. They can use natural recorded speech and/or text shown in speech bubbles, or to speak the text in speech bubbles via voice engines.

Using the MARVIN avatar-based technology allowed the team to explore voice recordings without the pictures of the people from the community, and yet the characters were recognizable as prototypical Indigenous people of the appropriate gender and age group. The importance of the avatars being able to represent a specific gender must be emphasized, as particular tasks and duties in Indigenous communities are generally gender-specific, e.g. child-rearing is virtually exclusively women’s responsibility. The characters used were animated, were readily accepted in the Indigenous communities and can be used over and over. The team could paint the backgrounds for the stories without using photographs of specific community members. If a death occurs and that person’s voice recordings are not allowed to be heard, then the voice recordings can be replaced with new voice recordings allowing the animated story to be told again. The replacement of the voices in the MARVIN environment is very quick and easy compared to re-shooting, editing and compiling a documentary film after the death of person depicted in a documentary film. Previously the on-site filmed documentary was the best way of communicating the health or child-rearing messages, but they became unusable after the death of any person depicted in the films.

When the literacy students from the community were trained in the MARVIN avatar-based multimedia construction environment they really enjoyed creating small scripts and developing the Yingarna story into an animated tool. Through this avenue of skill development, the students learnt about script work, literacy skills, computer typing skills, digital file transfer skills, photography, scripting characters around the story, such as moving characters and hand movement of characters. The students learnt these aspects very quickly because the training was visual and consultative based on the students’ needs. The environment played a big factor for work undertaken, because the students included their land in painting the pictures for the scripted parts. They learnt the story out in the natural environment giving students that cultural significance of the knowledge in the story and its relationship to their land. The project was extended for two years allowing flexibility for the students to develop appropriate resources.
The Yingarna model is now be used in other communities across the Northern Territory and has been adopted internationally. The movable story has generated enquiries from all around the world, achieving high recognition of the innovative technology and process used. It has demonstrated how Indigenous community stories can be brought to life. Both the young and the old folk now engage in the story production, whereas previously there was a wide gulf between the young and the old folk, but now through computer animation the young engage with the old people’s stories. 24 Indigenous communities have held consultation with the multimedia team on setting up Indigenous animation studios in their localities based on the MARVIN technology. In sum, it has been a community driven process of creating stories with locally relevant messages rather than a government policy driven process.

Implications for local setting

The developed resources from the Yingarna project were to be sent out to organizations and businesses in the community and were given to young mothers. The Yingarna DVD was intended for use by the young mothers who could view the DVD in their own households with their families in privacy. It was also intended for outstations (these are small Indigenous community residential groupings outside the main community location) and because most outstation have little or no access to computers, the DVD could be played on a normal DVD player. The DVD is also a model for future project work in storytelling for the community school and the outstation schools who may want to use the MARVIN model, i.e. the MARVIN multimedia authoring environment can be used for Indigenous communications in other contexts, such as in schools. The Yingarna DVD is also a powerful educative tool that can be utilised by the local health clinic when they promote nutrition and nurturing at the schools and in the community.

In 2006 a follow up project will take place by the members of the Yingarna team, who will research another story about the importance of the family. The story chosen will be scripted and expressed using the MARVIN software. A further DVD to be developed by the Yingarna team will focus on a creative story about alcohol and substance abuse. This DVD will be targeted at young teenagers and young adults in the hope of getting the message across about how alcohol affects family and culture in terms of health, financial and social dimensions. The community elders will play a big role in the creation of two DVDs, adding extensive cultural meaning and significance to the content created to remind young people that their Indigenous culture and knowledge is important to their spiritual selves. The Yingarna team will also apply for more funding through relevant funding bodies to develop these projects.

On reflection it has become clear that the MARVIN software animation features were under-exploited in this project, and it could be reworked using more sophisticated capabilities of the system. The local community music and professional artwork could have been used in the project leading to these products becoming more widely known. This could lead to commercial opportunities for the local artists as their music and art materials are introduced to a wider audience.

Implications for others outside the local setting

The exciting thing about the creation of the Yingarna story produced in the MARVIN environment is that outside organizations such as NAPCAN, Department of Health and other Indigenous organizations can use the DVD if they buy it. The Yingarna team translated the story into English and added subtitles to the MARVIN movie so that other audiences could understand what the story was about. In this way it became a story reading tool for the wider community. NAPCAN has a mention on their Website about the achievements of the Yingarna project and the history of using the avatar-based multimedia (http://www.napcan.org.au/). People and organizations can access the site and view the Yingarna team’s project history and find out about how to purchase the DVD. The avatar-based multimedia movie can also be purchased at NAPCAN NT and the Gunbalanya Injuk Arts Centre. Recently NAPCAN had this to say about the Yingarna Project:

_The Yingarna Project is probably the most inspiring and valuable community initiative NAPCAN is involved in._

_The vision and passion embodied by the dreaming of Earth Mother resonates with the yearnings of so many Australians, and people all over the world more broadly – simple, yet profound, practical messages of how every member of a community is important and can make a difference to the wellbeing of children and mothers, and in so doing the whole community as well. The Yingarna Project is innovative in its use of_
technology, and confident and clear in the way it has engaged students, service providers, organisations, government and community.

When NAPCAN tells the story of the Yingarna Project people are touched, moved and inspired to make a difference themselves, drawn to the positive and inclusive dream of Earth Mother – drawn to the understanding that this dream is very real and very achievable.

NAPCAN looks forward to continuing to learn about the benefits and successes of the Yingarna Project, for the children and the mothers, the Oenpelli community, and everyone else who has shared responsibility and joined this growing child friendly community. NAPCAN is honoured to be part of the child friendly community and to have the privilege of supporting the Yingarna Project. (A. F. Blakester, Executive Officer, NAPCAN Foundation, personal communication, 28.3.2006)

Last year the Yingarna team conducted eight presentations at Darwin, Batchelor Institute of Indigenous Tertiary Education and Gunbalanya Health Clinic and at conferences such as the Preventable Chronic Diseases held in August 2005. The Yingarna team presented to government department ministers and staff in Darwin in August 2004. These were major presentations and the audience were excited about the fact that a group of students could achieve such high standards in project work. In 2004 FACS Minister for Community Services, Marion Scrymgour, presented Yingarna posters, t-shirts and other highlights of the Yingarna team’s work, at the International Conference on Child Abuse and Neglect in Brisbane in 2004 and received strong support for the Yingarna project team’s achievements.

In 2005, Noeline Maralingurra received the award (Community Services Award) for outstanding achievement from a vocational education and training (VET) student for her work in the Yingarna project. The Yingarna team also were finalists in the VET NT training awards for the award category of the Group initiative award. They came close to the ultimate award prize, but were edged out by another outstanding group project. The Yingarna team also won the annual NAPCAN Courageous and Inspired Community Award in Darwin in 2005. The Yingarna team are proud and see a future for the Yingarna project to extend its lists of resources and will commence new similar project work in 2006.

The project is replicable in other Indigenous communities. Using these facilities and processes Indigenous communities can tell culturally relevant stories making the products their own. These stories and the processes of making these stories, lead to culturally relevant outcomes. The existing community information can be brought to life, leading to local ownership and pride in the project and the products.

**Conclusion**

Dealing in a coordinated way with the multiple issues of literacy development, health and child-rearing improvement, Indigenous cultural transmission between generations in a culturally appropriate way while capturing and holding the interest of Indigenous community members over considerable period of resource development is a massive undertaking. Often even simple projects, with limited goals fail to reach their targets in Indigenous communities. This project has struck the right chord of motivation and clearly recognized usefulness leading to the development of culturally appropriate and flexible resources. If any one of the Indigenous people whose voice or other distinguishable characteristics are captured on the MARVIN multimedia production die, those components can be easily revised and the materials may then continue to be used in these communities in the revised form. The avatar-based MARVIN multimedia environment has proved to be a highly suitable form of communication among the Indigenous communities. The avatars themselves suit many different community purposes and are readily accepted as serious (or funny if desired, e.g. see the talking beer can) carriers of meaning.

**References**


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The other community members with institutional representative roles involved in the implementation of the project were: Lesley Taylor (NAPCAN), Valerie Rowland (FACS), Terry Cubillo (FACS), Anthony Murphy (Injaluk Arts Centre manager), Jason Jones, Tristan Bellmore and Jay Easterby-Wood from the N. T. Health Department’s Media Unit.