Collaboration and partnerships in redesigning library spaces: the use of eLearning classrooms as multipurpose facilities and as mobile classrooms in the City of Johannesburg libraries

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Abstract:

The 12 eLearning classrooms are located in 12 libraries from all 8 regions in the City of Johannesburg (COJ) and were introduced in 2015-16 to be used only for online courses from selected universities; however, the library core services and needs were not accommodated in these facilities.
In 2017 the Municipal administration discontinued funding the management of these facilities, therefore COJ libraries had to find ways of ensuring that these facilities continue being utilised.
The worldwide challenge faced by public libraries in providing sufficient internet, and the budget constraints faced by libraries, have made it difficult to provide only online services in the COJ eLearning classrooms and much harder to upgrade ICT tools for all libraries. The solution for COJ libraries has been to expand the services offered in these classrooms to be more than online courses and to also assist libraries that do not have computers for digital skills and other organised eLearning programs such as coding or digital content creation, through the concept of mobile eLearning classrooms.
The eLearning unit redesigned the use of these classrooms, and introduced different programs, turning them into spaces where the communities can enjoy various services both offline and online.
Library services also identified NGO's and ICT companies to collaborate with, Google being the biggest corporation to have agreed to support eLearning in COJ libraries.
This program, nominated for the United Nations' 2019 World Information Summits Prize, addresses various SDG's such as ending poverty, by offering digital skills for job hunting, inclusivity and equitable quality education and promoting lifelong learning opportunities for all by providing access to all communities even in under-resourced libraries.

Keywords: eLearning in libraries, design thinking for libraries, collaborations and partnerships in libraries, digital skills in libraries, SDG's in libraries

Introduction: City of Johannesburg
As the economic hub of South Africa, Johannesburg is the second largest city in Africa, and

falls under Gauteng Province, attracting a number of internal and external migrants in search of economic opportunities. Johannesburg City has more than 4 million people even though the unofficial statistics estimate the population at 8 million with current unemployment rate of 25 per cent, of which 31.4 percent comprises youth between the ages of 16 and 35 (website 3).

In the 25 years of democracy, the City has managed to build a number of social amenities, including libraries, to keep up with the ever increasing community needs. The City's Growth and Development Strategy (GDS2040), highlights the importance of building liveable cities by providing various social amenities, including libraries. One of the outcomes in the GDS 2040 vision is, "increased literacy, skills and lifelong learning amongst our communities (website 4).

In increasing literacy and other skills amongst the communities, the library services realised that digital literacy skills are crucial to ensure that communities especially the disadvantaged are empowered to participate in the 4th Industrial revolution.

Smart city concept and COJ libraries

The Smart City concept, which is about re-thinking existing structures to fully grasp the potential of ICTs, was introduced by the previous city administration, in 2013 with a strategy and vision focused on the use of information technology to deliver municipal services and improve efficiencies. When evaluating Smart cities, Johannesburg was ranked 35th top African city in terms of sustainable urban development and ICT maturity on the 2016 Ericsson Networked Society City Index (website 5)

Introduction of eLearning services in libraries as part of Smart City Priorities:

The eLearning program was introduced as part of the city's "Smart City" vision and strategic focus on:
•   Youth employability
•   Bridging the digital divide among the citizens,
•   Enabling citizens to gain access to the knowledge economy
•   Reducing unemployment rate within the communities and encourage entrepreneurship

COJ Libraries are located in all 8 Johannesburg regions with a total of 87 branches. With more than 55 000 library users having accessed the eLearning services since 2016, COJ Libraries have been at the forefront in empowering communities by providing them access to electronic technologies and digital content, while faced with various challenges such as limited ICT skills' set for librarians, and insufficient resources due to lack of funding.

Defining eLearning services in COJ Libraries

The concept of eLearning is generally defined as the use of electronic technologies to support learning and teaching. A number of terms are used interchangeably, such as eLearning, blended learning, virtual learning, online learning or distance learning among others. The complexity of electronic technologies and the use of different terminologies makes it difficult to develop a clear and coherent conceptual framework for eLearning research. (Guri-Rosenblit and Begoña, 2011) .

In libraries electronic technologies perform a wide variety of functions and, in COJ Libraries, eLearning services are not just about online courses, but it's the support and access provided by the libraries through availability of electronic tools such as computers, tablets, facilities such as eLearning classrooms and also training on how to access electronic information, and by provision of free internet.

eLearning services include provision of: Free Wi-Fi, 12 eLearning classrooms with laptops, computers with public access to Internet(PAIL) in 60 percent of libraries, access to eResources and other digital content, and techno-literacy training for staff and the public. Collaborations and

partnerships with NGOs, education institutions and large corporations are a crucial element in enhancing the provision of these services.

Redesign thinking: ELearning classrooms

The introduction of eLearning classrooms was a project initiated by an Education Specialist in 2015 (launched in 2016), who identified the need to introduce COJ communities to online courses (MOOCs) in libraries, as safe and accessible spaces for free learning, especially for disadvantaged communities. The concept then referred to as "MOOV" for Massive Open Online Varsity, was embraced and funded by the city administration for a pilot period of 2 years. Libraries and library staff were not involved in managing these spaces, the funding was administered externally. This limited the involvement of library staff. The MOOV project only consisted of access to online courses and there were no other library activities that were part of the eLearning classrooms.

In 2017 during the change of administration, the city reviewed the programme and discontinued funding the management of these facilities. The city administration issued libraries a new mandate: "the city would continue funding the MOOV programme at its libraries, but libraries had to seek their own funding for the eLearning classrooms. Libraries were faced with fully furnished and equipped 12 eLearning classrooms with an average of 30 laptops per classroom, but there was no staff to administer and facilitate learning in the classrooms and there was no reliable internet connectivity. The monthly management and operational costs were no longer funded. COJ libraries had to find ways of ensuring that these facilities continue being utilised.

Lessons learnt by eLearning unit, from other international libraries, introduced the idea of design thinking. It is a concept that helps to systematically extract, teach, learn and apply human-centred techniques to solve problems in a creative and innovative way (website 6). The concept of design thinking has an appeal for a public library in the 4th industrial revolution era, when faced with changes in ICTs and new challenges such as the lack of funding to sustain an exciting project like the eLearning classrooms. Applied in libraries, it is a solutions-based design method that encourages prioritising the users that visit your library, working together to discover what communities want, and experimenting to create services, programs and processes to meet their changing needs.

The eLearning unit applied this concept of design thinking to redesign the use of the classrooms by introducing different programs, turning them into spaces where the communities can enjoy various services both offline and online and also to assist libraries without computer facilities.

The five phases of Design Thinking:

Design Thinking Process
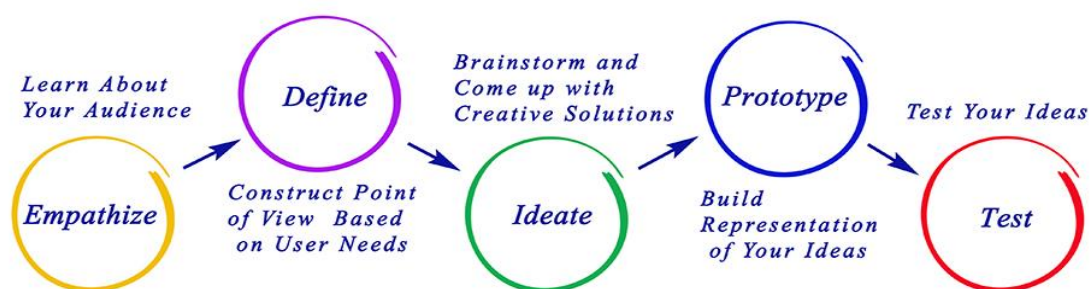
Empathise: with your users
- For example some library users were in the middle of finishing online courses when the project was discontinued.
- Others never had a computer at home or couldn't afford data.

Define: **your users' needs, their problem, and your insights.**
- Getting input from library users and library staff through various interventions:
- We had to identify the number of patrons who had registered for courses, and the types of courses they were interested in. Most of the online courses were not localised.
- User input was crucial. We used emails from registrations database to enquire from the users about their experiences in using the classrooms and also collected suggestions from library users during random visits.
- We also discovered that there were library users who had felt intimidated by the idea of doing online courses at the classrooms, so there was a need to create awareness on the concept of "MOOCs" and other purposes of classrooms.
- We also realised that some libraries could have benefited more from having a classroom and their library users had been asking for the eLearning classrooms in those branches.

Ideate: challenging assumptions and creating ideas for innovative solutions
- We vigorously pursued collaborations with NGO's, corporates and academic institutions, searching for opportunities where they can train staff in various digital skills, and also requesting sponsorships for eLearning programs where possible. We needed as much input from experienced ICT partners such as Google SA, IBM, Microsoft, FunDza Literacy Trust, who can provide skills and access to digital content that can be packaged for libraries.
- We had to think of alternative staffing and the kind of staff that is needed for classrooms. We worked with the Provincial government to source some funds to use for contract staff who will work in the classrooms. We devised new opening hours based on the limited funds for staffing.
- To address the issue of connectivity, we had to introduce programs that do not require internet and also engage library staff so that they can add other library activities in the eLearning classrooms.
- We introduced the mobile classroom concept to expand the eLearning classrooms to libraries that do not have computers, but have a high number of users who equally deserve digital skills and access to digital content.

Prototype: to start creating solutions
- We piloted a mobile eLearning classroom concept at the South African Children's Book Fair at The Dome in 2018, where we created a Mobile classroom, with 15 laptops for groups of school leaners to learn how to write stories within 30 minutes and have them uploaded live onto the FunDza Mobi site. This was facilitated by eLearning champion's librarians, available to support learners, identify challenges and to record the experience.

Test: solutions
- The first ongoing project that was introduced in libraries for Mobile eLearning classrooms was a Senior Citizens Computer skills training and Creative writing program at Murray Park. A group of 20 senior citizens between ages 55 and 75 began 2 hour lessons on basic

computer skills. 20 laptops were brought once a week to the library. These pensioners were then introduced to creative writing where they were using the acquired computer skills to type their own life stories which will be published once funds are available.

Addressing funding challenges through collaborations and partnerships

In 2010 EIFL launched the Public Library Innovation Program, recognizing that the use of technology offers new opportunities to increase access to knowledge, helping to improve standards of living and to transform lives. Through technology, public libraries are also well positioned to extend access to previously underserved communities. Yet in many countries where the need is greatest, public libraries are under resourced.

Strictly speaking, municipalities are not required to fund any functions that have not been explicitly allocated to them by the Constitution or other national or provincial legislation. This is a dilemma that affected eLearning services in COJ as a newly introduced library service. However, the Municipal Structures Act does not prevent a municipality from providing and funding the service (website 8).

In response to recent public library funding deficiencies, many people both inside and outside the field of librarianship have suggested that public libraries need to rely less on traditional government funding and more on alternative funding sources. (Agosto, 2008)

Gatiti and Law (2014) assert that the importance of building strategic partnerships present libraries with new tools that would bring the most effective services to the library users at affordable costs. They are a reality as they provide libraries with opportunities to access new skills and technology.

Collaborations and partnerships enhance libraries ability to serve their communities and make library services more visible and valued (website 9). COJ's eLearning services saw the value of establishing relationships with varied stakeholders whose purposes align with the library services, especially in the ICT sector. These stakeholders include NGO's, local schools, and community forums, private companies both large and small, universities and colleges. By linking libraries with partners across traditional boundaries, COJ libraries have managed to deliver better eLearning services, value, and outcomes for library users, stakeholders, and communities.

COJ Libraries have engaged various stakeholders to enter into collaborations for eLearning services particularly utilising the eLearning classrooms, and the most notable partnerships and collaborations are:

- Google SA – free Wi-Fi in classrooms and access to digital skills.

- FunDza Literacy Trust- reading and story development

- African Storybook(ASb) – reading and story development

- Goethe Institute - Staff training on digital content

Success Stories
Introduction of coding in libraries eLearning classrooms

Collaboration with Microsoft SA and Siyafunda ICT resulted in training of 72 library staff on coding basics so that they can introduce the youth to coding in their libraries, working with schools.

Library and Information services have always played a supportive role and worked with schools and educational institutions in their curriculums. In South Africa the Department of Basic Education announced that Coding will be among the 3 new subjects to be introduced. COJ Libraries need to be at the forefront in preparing communities and educators for this change. Most township schools are under resourced and do not have electronic resources such as laptops or tablets or computer rooms. eLearning services provide this support by also collaborating with NGO's and corporations that can provide assistance in implementing the Coding activities in all libraries and encouraging youth to embrace computer science through coding. In the eLearning classrooms, "Hour of Code" activities were introduced where children are engaged in Mine Craft and Scratch Coding activities via the Code.org website.

Introduction of Digital skills online training by Google SA and IBM

Google SA Digital Skills for Africa
In 2018, COJ Libraries entered into an exciting collaboration with Google SA to bring access to online Digital Skills for Africa courses. Google SA supports eLearning classrooms by providing free Wi-Fi for the public to access free Google Digital skills using the classrooms or their smart devices. These courses focusing on employability, digital presence for entrepreneurship and other digital skills, are accessible via an eLearning portal – www.cojelearning.org.za.

IBM Digital Nation Africa (IBM DNA)
COJ Libraries also identified IBM as a partner that can bring digital skills to our communities using the eLearning classrooms. IBM Digital Nation Africa is a digital skills program that aims to provide skills on emerging technologies (Artificial Intelligence, Coding, robotics, Cybersecurity) and also provide the users with links to relevant jobs. Users earn badges for every module completed. IBM created a unique link for City of Johannesburg which was added to the eLearning portal.

Both of these platforms contribute to improving digital skills and employability for the disadvantaged youth.

Reading and story development projects

FunDza Literacy Trust
COJ libraries partnered with FunDza Literacy Trust in 2017 to introduce youth to writing and reading using technology. FunDza has been working with libraries by conducting story development workshops in our eLearning classrooms for youth FunDza aims to get teens and young adults reading for pleasure by providing the kinds of stories and articles they want to read. FunDza's mobi site - fundza.mobi - is available on any device with access to the internet, where users can find new exciting local content daily. FunDza also has free open online courses for anyone to improve their reading and language skills (website 10).

African Storybook
Using the eLearning classrooms and the mobile eLearning classrooms concept, COJ Library services under eLearning, started working collaboratively with African Storybook (ASb), an exciting initiative that is aimed at not only cultivating the culture of reading but also introducing younger children aged between 6 and14, to story development and writing their own stories in African languages using electronic tools (laptops or tablets or personal smart devices).

ASb is a literacy initiative that provides openly licensed picture storybooks for early reading in the languages of Africa. Developed and hosted by Saide, the ASb has an interactive website that enables users to read, create, download, translate, and adapt stories (website 11).

The website (www.africanstorybook.org) provides not only openly licensed stories for use, but also tools for the translation and creation of storybooks. ASb won the 2018 "Google Impact Challenge" and they are in a process of developing an offline reading and story development app which will be piloted in two of the COJ libraries eLearning classrooms.

Mobile Literacy with Goethe Institute

Worth mentioning, is Mobile Literacy program; this is the second most effective and successful eLearning program introduced through collaboration with Goethe Institute on a train-the-trainer program. Although it focuses on the productive use of personal smart devices like smart phones or laptops by library users, this program initiated in 2017, trained and introduced librarians to using mobile devices for various programs such as reading and story development, fake news identification, QR codes, finding apps for library activities as part of "Gamification in libraries". The eLearning classrooms are also used as activity rooms during Mobile Literacy Gamification activities even while using tablets or smart phones. The 2019 Mobile Literacy Fake News program involves educating the librarians and the public about how to identify fake stories, fake job adverts, and fake websites. Therefore, preparing them for assisting particularly jobseekers, students and small businesses who use the eLearning classrooms

International exposure of COJ eLearning services

International exposure of library services, especially ICT based services, is vital to ensure recognition of the work that libraries do to introduce the communities to electronic technologies and digital content. This exposure also assists in sourcing support and collaborations.

In the 2018/19 financial year, the collaboration with Goethe Institute was instrumental in assisting the eLearning services Manager to acquire sponsorship from the German Fund to attend the Next Festival in Berlin in September 2018 to present an Ignite Talk on eLearning services.

United Nation's 2019 World Summit on the Information Society (WSIS)

The Library and Information Services: eLearning Unit submitted the eLearning classrooms program to the WSIS Stocktaking Database, to ensure recognition of the COJ libraries for their contribution to SGDs. The database is a publicly accessible system providing information on ICT-related initiatives and projects carried out by governments, international organizations, the business sector, civil society and other entities with reference to the 11 WSIS Action Lines outlined in the Geneva Plan of Action (website 1 &2).

COJ eLearning services were nominated for the WSIS 2019 Prize under eLearning for SGDs 4,5,8,9 and 17 and also listed as one of the only 3 projects from South Africa, on the Stocktaking Process Report 2019 Edition,

Sustainability Challenges

Some of the libraries with classrooms, due to lack of funding, do not have full time dedicated library staff for the eLearning classrooms. 11 out of 12 classrooms open only 3 days a week with library staff rotating turns.

Infrastructure is also another challenge, where some of the classrooms were built in libraries that are not easily accessible to the disadvantaged communities, or where connectivity is not reliable due to lack of infrastructure in the area. Currently the existing classrooms have outdated laptops and software and no plans to have them replaced as there is no funding.

Safety is also a factor in some of the libraries with classrooms. ICT equipment in an unsecured environment can be vulnerable to crime or damage.

Sustainability of eLearning classrooms programs is a major concern if COJ libraries continue to be reliant on collaborations and partnerships. Without additional funding from the City and continuous support from collaborating partners, sustainability of some of the programs is not guaranteed. For example, the Wi-Fi currently being used in the classrooms is sponsored by Google SA and if that collaboration ends, there will be poor or no connectivity at all in the classrooms.

Conclusion

ELearning classrooms in libraries and the introduction of mobile eLearning classrooms have had a lot of impact in how the public views libraries. The introduction of technology, internet and online learning has made libraries more appealing, but the eLearning Classrooms have played a major role in encouraging communities to come back into libraries as safe environments within their communities, to access internet and digital content.

More than 20000 youth and adults have accessed the eLearning classrooms since 2016. Some have started their own businesses after learning courses such as "web design, Digital Content Creation, Facebook for Business". Staff training supported by various collaborating partners has brought new skills to the COJ librarians who have implemented a lot of eLearning programs after getting training on different digital skills applicable to the library setting. Mobile eLearning classrooms concept has benefited under resourced libraries and some of the programs have had a positive impact on marginalized communities such as pensioners. The success of eLearning programs particularly utilization of eLearning classrooms can be attributed largely to the support and contribution of collaborating partners.

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