5IK501 - IS/IT for Organising, Communicating & Coordinating II

Assignment 4
Case study

Digital Wall: The University's learning and information space

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Executive Summary

A North American university is engaged in a large transformation project involving the whole organisation. Students, Lecturers, departments and additional questions from the shared leadership team (Sommerville, 2014, p4) are engaging in defining the services offered, in particular from the university library and its associated sub-services. It is an exciting time for the University as it seeks to not only define its services but also how these can be created and consumed.

There are many aspects to this re-organisation and many items to be addressed. In this report, we look at the current situation at the University, as well as taking into account the aspirations of the stakeholders. We start by drawing out a Rich Picture, part of Soft System Methodology (SSM) (Checkland, 1981) which we use in order to spot opportunities that are available for further exploration. Much of the information that we use comes from material supplied by the University itself as well as interviews with the Head of Library services and Head of Library IT. We look in depth at how SSM assists in this process of evaluation through its focus on participation and how it may assist us to understand the many different perspectives collected in our research. SSM consequently assists in defining problems with solutions to any areas that have drawn our attention.

Following the evaluation of collected data, discussions and our own observations, we identify that a digital wall that is being proposed for the redesigned library presents an opportunity to explore possibilities for exploitation of this technology (Peppard and Ward, 2016, p184). Further research on other digital walls such as Brisbane's Cube (Abdi et al, 2014), and Auraria Library's Discovery Wall (Burch, 2016) shows some of the uses that these walls have been put to and how the Institutions use them. We then use a number of models to evaluate the data that we collected on digital walls and from the North American University and analyse it in order to inform our thinking. These models can be used independently or collectively to evaluate data from different perspectives. As such we were able to look at problems and solutions from the perspective of many of the actors involved in shaping the future library services. These models and results are discussed in the report.

Finally, we take our results and make a number of proposals for the North American University digital wall along with the relevant justifications at the end of this report.

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Linnæus University

1.   Introduction

1. 1 A North American University - Context presentation

The focus of our study is a North American University which is one of the oldest chartered Universities in the world.

The Head of the Library and the Head of Library IT have begun the process of developing new IS/IT capabilities for the University. In particular, there is a project to develop the main library facility at one of the University main sites and its services through physical and virtual redevelopment. As part of this project a number of potential opportunities have been identified which each need to be studied and understood to see if it fits within the overall strategies of the University and Library. One of these opportunities is with the so called Digital Wall. The Digital Wall is envisaged by participants in an earlier Participatory Design workshop as being a space where content created by staff and students can be displayed within the library building. Some of this content will be developed by a new degree program called the New Media Program which will allow the design and building of digital learning technology from recording to post production to final viewing.

In this report we look at the opportunities for the Digital Wall and present a plan for the future use of it. The report sets out a plan for the project following the phases of Soft Systems Methodology (SSM) (Checkland, 1987): Finding Out, Modelling, Comparing/Debating, and Taking Action. Each of these sections will show how we intend to tackle the investigation into the Digital Wall and the methods and methodologies we used.

To start with, in the next section of the introduction we describe the report organization, by mentioning some important things of the structure of the University of the Pacific. Next, we refer to several collective qualifications of our team in order to show our credentials and our willingness for this report. Furthermore, the project process plan follows in which the Soft Systems Methodology (SSM) is defined and its processes analysed. Additionally, SSM's phases are shown in practice by using them in our project about the Digital Wall.

In the project process phase 1, Finding Out, some notes and knowledge from previous assignments and literature are mentioned as well as the rich picture for this project. In the project process phase 2, Modelling, SSM's modelling techniques are reported such as the Viable System Model and rich picture. Of course other models are used in addition from our literature such as DIKAR, Application Portfolio, Infusion/Diffusion and the digital capability in order to visualize different ideas and viewpoints. In project process phase 3, Comparing/Debating, SSM's comparing and debating techniques are stated in order to test the viability and feasibility of the different ideas as represented in models. In the last project process phase 4, Taking action, some recommendations are referred in order to be handed over to the case organization as well as some outcomes and findings which perhaps are important for the future research. In conclusion, there are several points in discussion and our experience and knowledge from this report are mentioned at the end of this project.

1.2. Description of the report organisation

The University constitutes an independent and all-time great university which educates nearly 6.300 students from all over the world on its three campuses located in different cities. Today, it continues to become nationally recognizable because of its leadership in higher education and deeply commitment to personal and student-centered approach. As a result of this, the mission statement of the university is the following: "The University's mission is to provide a superior, student-centered learning experience integrating liberal arts and professional education and preparing individuals for lasting achievement and responsible leadership in their careers and communities".

The University offers multiple programs to students such as undergraduate, in which it has over 80 areas of study such as Art, Asian language and studies, Biology, Business Administration, Communication, Computer Science, Economics, Engineering, History and many others. Additionally, it has a broad list of Accelerated programs which have designed for talented and consecrated students who want a professional degree. Also, it consists of Professional programs and Special Academics Programs. Small class sizes, diverse perspectives and professors who are familiar with students are the guaranty of this "nationally recognized university."

2 Project Process plan - Presentation and Layout

After presenting the case organization, it would be useful to examine the Soft Systems Methodology (SSM) and its phases in order to justify its importance and usefulness to this report.

2. 1 Soft Systems Methodology (SSM)

Soft Systems Methodology is characterised by those Human activity systems that do not exist in tangible form and are defined by David Patching (1990) as "a notional system where human beings are undertaking some activities that achieve some purpose". Soft Systems Methodology (SSM) is an organized and action-oriented way to deal with problematic situations and provide solutions to them. The complexity of these problematic situations arises from the fact that they contain multiple interacting understandings of reality. This is happening due to the different assumptions about the world from different humans. For example, an individual might see the prison as punishment and another one might see it as reclamation. They have different worldviews which may change over time. Also, there some people who act in purpose and with intention in order to do something and not by instinct. So, these two features of different worldviews and purposeful action lead the way to improve problematic situations. (Checkland and Poulter, 2010).

The SSM approach, as a process of inquiry, works its way to "taking action to improve". Particularly, it is used to find out the problematic situation and describe its characteristics and issues. From finding out, it is important to formulate some relevant purposeful activities in order to explore the situation deeply. Next, these relevant purposeful activities are presented as activity models, which are tools in order to explore a situation in an organized way. These models could be a source of questions or debate about how the situation can be changed or improved. Subsequently, combining the results of Finding out, Modelling and Comparing/Debating, the aim is to find solutions which are

both desirable and feasible for the particular situation and make them action, by accepting different world views. This shape of SSM approach is called the learning cycle, which can be seen as never ending. It provides a way of managing any ongoing human situation by helping understanding of complicated situations, encouraging various perspectives to be taken into account and keeping strictness to processes of analysis, debate and taking "action to improve" (Checkland and Poulter, 2010).

Once the Taking Action phase has been completed, the SSM framework has been established and developed with a few more experiences. In this point, the LUMAS model captures all of these experiences. This specific model is a generic model in order to make sense of real world application of any methodology. LUMAS stands for Learning for a User by a Methodology-informed Approach to a Situation. (Checkland and Poulter, 2010).

- **L**earning
- **U**ser: Students
- **M**ethodology: Improving technology
- **A**pproach: Improve library services
- **S**ituation: Digital Wall

2.2.   SSM Phases

We will focus in our case study on the 4 main stages, i.e. Finding Out, Modelling, Comparing, and Taking action. We act as consultants in this case therefore the last stage will be in the form of recommendations presented to the decision-makers to take action.

3.   Project Process Phase 2 - Modelling
3.1.   SSM Modelling techniques
3.1.1. Viable System Model

We have decided to use the Viable System Model (VSM) in our case, because the Digital Wall concept as an entity has the potential to be viable, that means that it can survive on its own and maintain its existence independently, adapting to its environment (Beer, 1985). It has close connections with the surrounding environment which affects it, and it turn, it also affects its environment. The VSM model is used as a tool in order to either identify a problem in an organization or in our case, design an organizational structure. We have applied the model to our system in focus, the Digital Wall and followed the model's working procedure Visualise --> Analyse --> Break down and make clear --> Focus on different aspects --> Design (Walker, 1998).

According to Beer, all organizations consist of three fundamental elements:

1. *Operation*:   where the primary activities of the organization take place - The Digital Wall itself and its operator(s)
2. *Meta-System*: makes sure that all parts of the operation work coherently and flawlessly together - The Wall's manager(s)

3. *Environment*: the outside world parts that affect and are affected by the system - The University and its needs

Our system in focus consists of three different layers of controlling mechanisms-subsystems (picture 2):

- System 1 - System 2: (Operational and regulatory direction)
- System 3 (Here and now operations)
- System 4 - System 5: (Information and management channels)

Each subsystem has its own purpose and serves a different role inside the entity:

System 1 is a copy of our system in focus and its is the practical operation of our entity. We can say that it is viable by itself since the Digital Wall with just one operator can exist independently. In our case, System 1 is the actual Wall itself, the screen, the hardware, the appropriate software and its operator, the person responsible for feeding it with content. However, on such a large scale as a University's Digital Wall, it needs the other subsystems to operate at its full potential, since it's a part of the bigger picture, the whole project of the Digital Wall with all its parameters, as an asset of the University, also being the system in focus. In our case, System 1 will receive content from three different sources as of now:

- The Library
- The New Media program
- The Writing Centre Service Providers

This content will be directly sent to the Meta-system/ Management section through System 2 (through specially designed software or more conventional ways like cloud drives), which will filter it through amplifiers and attenuators (again through its software, where algorithms should decide which content is suitable for reaching the Wall and which is not, or again through conventional means - human interaction) and ensure that it reaches System 3. Simply put: flawless and stable communication and interactions between the operation and the management sectors. Amplifiers and attenuators mechanisms are responsible for ensuring that that the system's variety (a measurement of complexity) will not be more than the system can handle. E.g. the contents arriving from the environment can be great in numbers and it would be impossible for the system to process them all. System 2 will filter them and allow only the ones that matter to proceed. It is an extremely important procedure that requires the utmost attention to detail.

The content will arrive to System 3, or else the "here and now" management. System 3 will overview the entire operation and will be mainly responsible for managing the content and optimizing it in order to be presented on the Digital Wall. This is the most important subsystem, that ensures that the system in focus acts in harmony like one unit. It works in collaboration with System 3*, which informs our managers about the operation's actual condition status. The manager of the Wall can be a University's employee, probably the same person we mentioned in System 1, that apart from feeding the Wall with appropriate content, he can be responsible for managing it and ensures that it runs smoothly. Accumulated responsibility can work to the Wall's benefit in this case, since the manager will know System 1 and 3 inside-out and decide without losing precious time or information.

Moving on, System 4 is scanning the environment for possible opportunities to add content. The three different sources that the Digital Wall will be receiving content from shouldn't be the only sources of content, since different sources mean that the Wall will attract different groups of people, and this is something desirable. System 4 will be looking for these opportunities and decide on future content. While the aforementioned manager should have a voice in this system, a small council that would consist of student, teacher and staff representatives is more ideal in encapsulating what everyone in the University expects from the Wall and pave its future contents.

Finally System 5 is the absolute authority over the Digital Wall, the brain. A person or a council that will define policies concerning the Wall and its identity, its role inside the University, through the vision of what the Wall aspires to be and what does the University expects from it. It is responsible for the ground rules within which everyone will work. This is the president or the head-council of the University, that after he establishes the way the Wall will work, he will only intervene in times of need.

By using the VSM, we break down into small compartments the Wall's framework and clarify processes that could otherwise considered obvious, although the flawless operation of the Wall would depend on them, especially now since the Wall's concept is still at an embryonic stage. Communications between these Systems is equally important to the Systems themselves, as illustrated in picture 2. A specially designed software for the Wall would ensure that everything revolving around this concept, would be gathered in one place, easily accessible from all sub-systems.

3.2   Rich-picture

As part of the finding out phase of the Soft Systems Methodology described earlier, a rich picture (shown in Appendix A) was created in order to visualise and evaluate the current situation with regard to the North American University and the library and the desired plans for the future. The rich picture falls into mapping portion of SSM under the Perceived Real World Problem. The rich picture is a pictorial diagram that allowed the exploration of the given situation at the University taking into account all factors -hence the richness- that affect it in order to build and understanding of the situation and its relationships and to discover possibilities for improvement or change. This picture allowed the research group to identify the Digital Wall as a potential area to be studied for this report. We see the Digital Wall as playing a large part in the library and believe that increased use will be beneficial to the long term of the University's library plan. Having multiple participants using the wall at the same time would be advantageous as can be seen with the example of The Cube at the University of Brisbane (Abdi et al, 2014). This kind of participation it is envisaged could lead to increased collaboration between students and different departments whereby new previously unheard opportunities could be explored. Huge potential lies in this area.

3.3. Other models
3.3.1. Digital Capability

Knowledge and information are required by the University in order to build a digital capability. Much of this knowledge already exists within an organisation and therefore the entire organisation should be utilised to create the digital capability. Peppard and Ward (2016, p469) describe Digital Capability as an *"ability to use IS/IT effectively and advantageously"*. From an

individual's point of view the digital wall could be used in a number of different ways and this digital capability could mean altering the way in which the individual should work or gather knowledge as well as how they learn new skills and procedures. Organisations see digital capability as the way to do business or achieve their goals whereas from a societal point of view digital capability changes the way in which the world can be seen as technology is viewed as a product of the context of use (Orlikowski 1992). Ultimately in this research we see Digital Capability as the ability of the University along with its various members such as lecturers, staff and students to use the Digital Wall effectively and in a strategic context.

The two views, individual or organisational, shown above are not exclusive and can co exist within the context of the university library. Indeed, the concept of working together is crucial. What is known as co-evolutionary theory shows that a number of factors are evolved in an environment by an organisation at the same time (Peppard and Ward, 2016). This is especially true when building the digital walls capability, balancing both the needs and desires of individuals along with the strategic goals of the University. The theory forces an organisation to look at its various functions and the ability to cope with disorder and uncertainty in the environment. Therefore as we see the digital wall as being central to the Library the digital capability needs to be developed carefully to ensure that it meets the needs to all parties.

3.3.2. DIKAR

DIKAR stands for Data, Information, Knowledge, Actions and Results with each word representing a stage in the model. Each of the headings can be considered as a stages in the model interlinked by certain activities that increase value to an organisation. The DIKAR model can be used to understand Knowledge Management within the University. Peppard and Ward (2016) describe how an organisation can use this model to understand how knowledge can be processed and used in a certain workflow from data through information generation to knowledge creation. With this knowledge the University can choose to act in certain way and model the results.

Crucially, in our research, the model shows how current data could be used in the future to inform the University of the Pacific on how to use the Digital Wall. Within the university much of the content (Data) for the digital wall will be produced by the new media program curriculum. This Data will be given context by the producers and the consumers (Information). If we were to imagine that content can also be generated from other sources such as lectures and other departments then the DIKAR model can assist in showing how this could work and the processes (linkages) required can be developed accordingly to assist. Peppard and Ward (2016) show how these linkages show the competences and practices of an organisation. We argue that it can also show the lack of these elements as well. This is particularly useful as the University builds up its digital capability and is required to set up new processes (linkages) that are not yet in place.

In reverse flow the DIKAR model shows how business results can be obtained starting with some kind of desired result and shows the knowledge and actions required in order to achieve that result. When used in reverse or in the so called RAKID direction (Peppard and Ward, 2016) the model can show what data is required to produce a desired result along with all the steps in between. Using the model in this way will allow the University to focus on the end result generation of ideas. With these ideas conceived the model will show how to get there.

3.3.3. Application Portfolio Model

The application portfolio model is recognised as being an integral part of any IS/IT strategy as described by Peppard and Ward (2016). It is used to identify a portfolio of computer based applications for a business to realise its goals. In this project we propose to use it to build up a list of the "applications" for use on/in the digital wall which would allow the North American University Library to develop the required strategies for the walls usage. An application portfolio can change as priorities change. This may be due to external factors or new technology opportunities that come up in future. This would benefit the University greatly as it allows a change of focus or strategy at a later date. The application portfolio can be split into 4 broad categories. Each of these categories then contains relevant applications. These categories are shown below with an example of where we see potential applications fitting:

1- Strategic
The wall will be central to the new library and digital space. Strategic applications are those that align to the University's overall strategic goals.

2- High Potential
Show new work and ongoing studies that have high potential for the University to extend its reach. These applications could lead to additional students and funding.

3- Key Operational
Applications that show ongoing day to day activities such as News, updates to schedules and important info about the University and Library services.

4- Support
Information for staff and students displayed. QR codes could be used to redirect to other resources provide over the Internet.

The application portfolio model fits well for discovering the types of applications that could be used on the digital wall. It allows decision makers to retain some kind of management of the digital wall, specifically what it can and cannot be used for. This is especially important as the Digital Wall will be the most high profile (visible) of the projects in the proposed redevelopment of the library. As such it needs to be protected from free for all open access. By doing so this means that the wall can't be hijacked for illicit purposes but equally could restrict its use to a privileged group who have the power to censor or veto content. The North American University's published document *Crossing Boundaries for Academic Excellence* provides a guide on how the university plans to organise itself over the next 5 years. By comparing this with the application portfolio we can see that the Digital Wall fits in with Goal 2 - Provide Comprehensive Support for Student Success, Optimize library services to meet current and emerging student needs as well as Goal 3 - Support Excellence in Scholarship and Creative Work, Enhance the culture of interdisciplinary engagement by promoting colloquia, visiting scholars, and high-profile speaker series

3.3.4. Infusion / Diffusion Model

Since not all IS and IT investments will make equal contribution to the University's success. The Application Portfolio model provides a classification of the different types of contributions, for example sustaining the performance of core business operations, or observing mandatory compliance

rules & regulations. Sullivan's Infusion/Diffusion matrix could provide an internal context to the University by recognising the many pressures and tensions due to forces beyond its control, and those that have to be reconciled in the strategic management of Information Systems and Information Technology (Sullivan, C.H., 1985).

Using Sullivan's model and associated matrix we are able to consider the effect of introducing a new technology, in this case the digital wall and some of the proposed applications of it, and see whether it would be better to be infused or diffused throughout the organisation.

The matrix within the model show the forces at work as represented over two axes and on which the following points can be considered:

- Infusion shows the degree to which the University becomes dependent on IS/IT to perform its core operations and manage the core business; It is therefore the extent to which technology permeates an area or department, or how deeply embedded technology is in an area of the University's organisation.

- Diffusion shows the degree to which IS/IT is distributed throughout the University. This could be a measurement of how widely technology is spread throughout the University.

Using this model it is possible to see how the the introduction of new technology affects the University and how well the university affects the usage of the technologies on an ongoing basis. By modeling the effect of external forces we are able to see that some ideas for the Digital Wall will be easier to implement than others.

4.   Project Process Phase 3 - Comparing / Debating

SSM Comparing & Debating techniques

SSM phase 3 takes into account discussions about the models constructed in the previous two phases and places an emphasis on comparison within the perceived situations. By doing so it is a way of determining and finding common ground between different worldviews. This is especially important as we have a number of actors involved in the Library project who have an interest in the Digital Wall. Students and lecturers are both involved in the learning and research within the University but in a simple context one teaches and the other learns. By debating differences we can also start to see similarities and therefore blur the line between the two. The Digital Wall could become an area where students teach lecturers (Simonsen, 1994).

With regards to discussing future proposals there are four types of discussion that can take place in phase 3 of SSM. For the purpose of this report we only took into account the first type for practical reasons:

1)   Informal discussion.
2)   Formal questioning.
3)   Scenario writing based on 'operating' the models ("[...] reconstructing a sequence of events in the past [...] and comparing what had happened in producing it with what would have happened if the relevant conceptual models had actually been implemented").
4)   Trying to model the real world in the same structure as the conceptual

models (and hence compare).

We have now a dynamic system (Picture 2), where every part of the system in focus is in a continuous interaction with all the other parts. Information flow is ensured, it can handle changes and the communication channels will provide the right information to right unit at right time.

However, there are some other issues to be resolved. In our case, there is the need to understand the environment and that is what the users of the Digital Wall would like to see and what do they expect of it. A survey could assist in this purpose. Additionally, taking into consideration that some of the University's staff will be responsible for more than one sub-systems, we ensure that the relationships between the subsystems will be tight and with close collaboration.

We understand that the funding has its limits, but if the Wall can be interactive, it would multiply its importance and possible uses. Furthermore, we have to consider that the Wall without proper software will lose potential, therefore it is equally important as the Wall itself.

5.   Project Process Phase 4 - Taking Action

5.1.   Report outcomes and/ or findings

Phase 4 of the SSM model refers to the taking action stage. By taking action much of the discovered opportunities from earlier phases can be exploited. We have already identified that the Digital Wall presents an opportunity for not just active students but for the whole university as not only a learning resource but as an informational tool.

From a process perspective utilising the new media program as the platform (and department) for creating and displaying the majority of content is not only feasible but also ensures that content would have to go through a university department before being displayed on the wall. As noted earlier in the VSM model content could come from multiple sources. Processes for submitting and evaluating content must be created. This will help to keep costs lower and ensure that non-appropriate content is not displayed. However, there needs to be flexibility to book wall time for other interesting work. By being inclusive with the SSM taking action phase all participants this will assist in the sharing of ideas and exploration of issues (Sommerville, 2014, p4).

5.2.   Recommendations

The digital wall is the showcase of the University's technological advantage, it is therefore highly recommended to have it in a location that provides maximum space coverage & impact, either in its current location or on the main landing instead of the welcoming desk.

We recommend to Create & Maintain a user-friendly (intuitive) cross-platform portal (or interface) with focus on mobile (smart) device use and Wifi connectivity; most searches and reading is done nowadays from personal mobile devices, perhaps with a Library App more users can be reached. Also, highly needed for competitive and technological advantage is the infrastructure to support student digital project creation, discovery, and access. Additionally, an application that

would help the user navigate on his personal panel or the main Wall would be an innovative idea and will transform mobile devices into remote controllers, opening up new possibilities.

We also highly recommend to provide a high design attractive interface with an animated university mascot, perhaps with an interactive digital chat for users who need assistance or seek information (For example: *Ask the Mascot*, such as Microsoft's Cortana or Apple's Siri, or Amazon's Alexa)

Moreover, it is also crucial to create a Learning experience platform that is at the same time interactive, proactive, intelligent, responsive and engaging.

Since the Digital Wall is funded from the New Media program, it's only natural that it will be deriving content mainly from there. However, with an equal distribution of content from the New Media program, the Library and the Writing Centre Service Providers, an interactive Wall can act as a terminal for accessing the library's material and content from the WCSP. In addition to this, students will be able to access content even past the library's working hours.

The Library can organize thematic days, where schools can visit the University in order for the children to have their first meeting with higher educational concepts. The Digital Wall can assist in this process through educational-based interactive games and cover subjects such as history, physics, chemistry and biology.

Important information for freshmen should be made available via the Digital Wall, enriched with interactive maps and updates for events like registrations and bookings. This can be complemented with the aggregation of online comments sent from public social media such as Twitter and Instagram or by utilising internal communication platforms.

We envision the Digital Wall as an interactive tool that will combine education and entertainment. We strongly believe that it has the potential, at least more than other improvements, to transform positively the centrality of the library. It shall be the heart of the campus, a place for students, professors, faculty and a significant reason for the local population to become more attracted to the University.

Further discussions using the other methods listed in section 5.1 may produce more refined versions of the ideas presented above to lead to additional ideas.

As for the entity's name, we suggest to replace the placeholder "Digital Wall" name, with *WonderWall.*

6. Conclusion

The North American University has an opportunity to redefine its Library Services in a new way. By doing so and carrying out some of the proposals in this report it will help to contribute to the University's Vision. Through the process of collaboration and using inclusive participation and proven methodologies such as Soft System Methodology we were able to work with some of the actors involved in order to identify an area for exploration. We feel that the Digital Wall/WonderWall provides a highly visible opportunity for the university to do something spectacular as well as high useful to all those involved. Central to this idea we believe that the Digital Wall/WonderWall is a showpiece for the University and provides a mechanism for highlighting the work that is being carried out at the Library as well as providing a central location for finding out
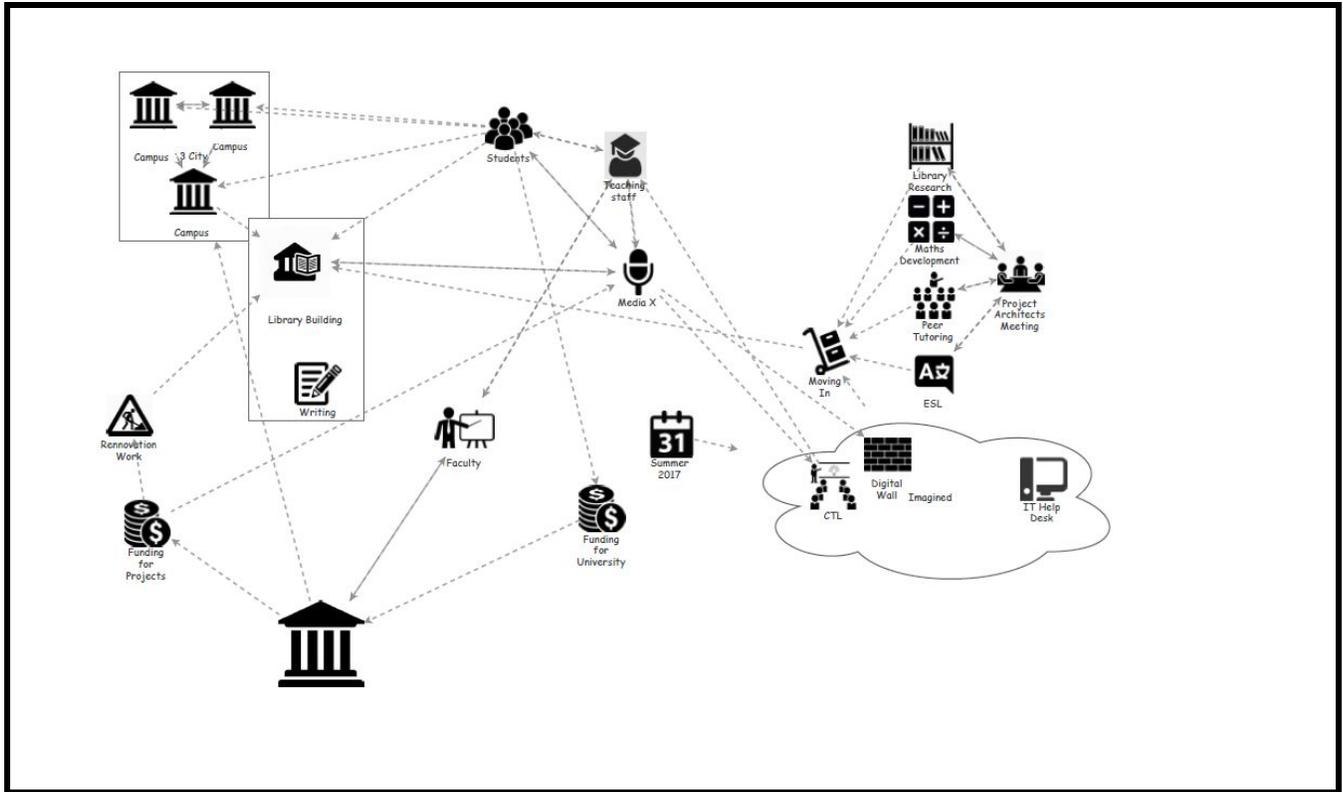
new information. The main idea with the digital wall is to bring the library to the student (and other users) instead of the student to the library; the end-users are students, lecturers, academics, and the general public so ideally the focus would be on providing the user with an experience that is similar (if not identical) to their real-world.

By using some of the models highlighted in our report, such as DIKAR, Application Portfolio, Infusion/Diffusion and also defining what digital capability means to the University we have been able to visualize different ideas and viewpoints. These in turn have been compared and debated in order to decide which ideas are best to be pursued. We have been able to show how we arrived at our conclusions and shown that further ideas can be evaluated using the same techniques in future.
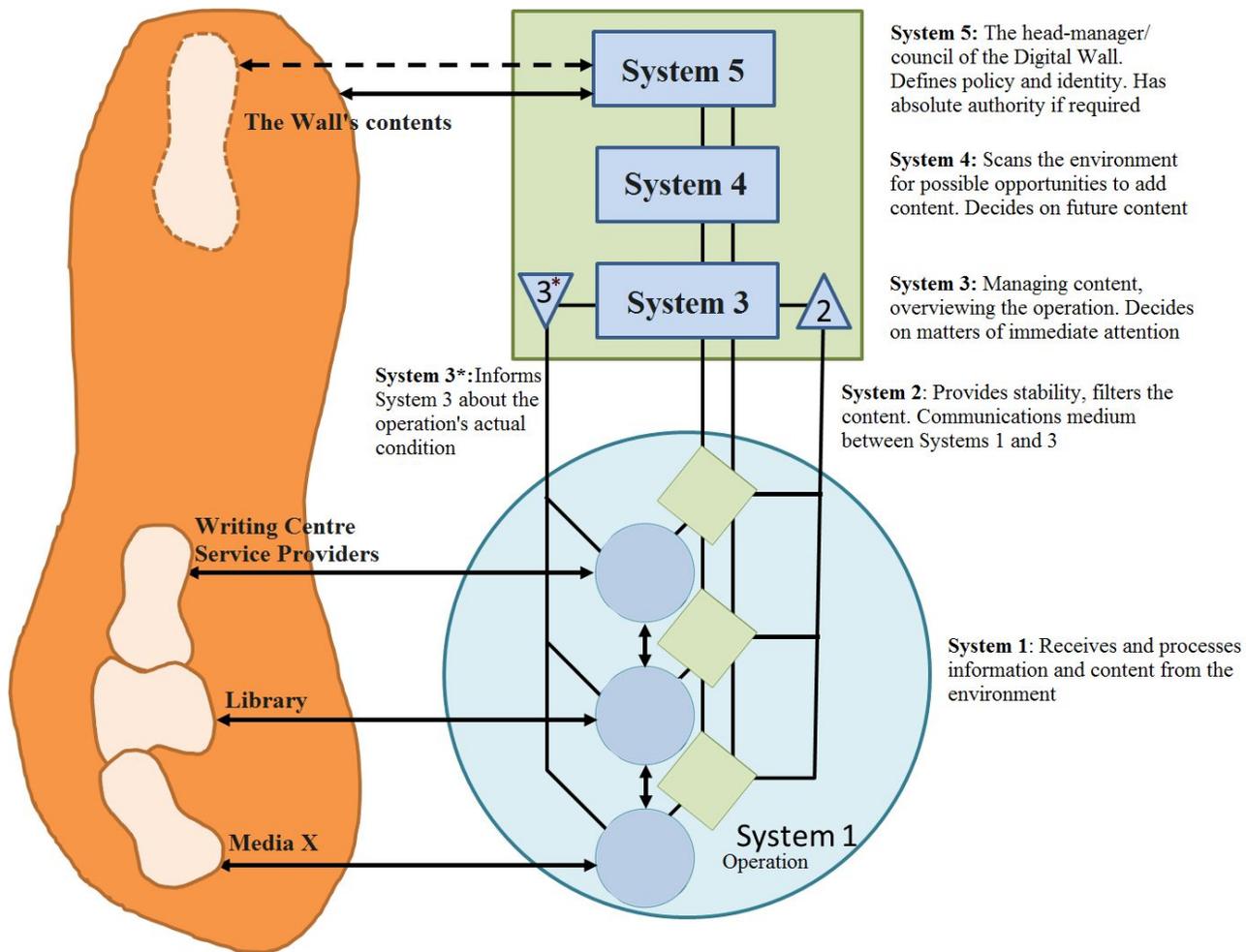
Finally from the outcomes and findings we have been able to make a number of recommendations that we feel are worthy of further exploration. The North American University should explore further uses for the digital wall and make it an ongoing piece of work so that whilst the technology may age the ideas for its use remain fresh.

Appendix

A

B

System 5: The head-manager/council of the Digital Wall. Defines policy and identity. Has absolute authority if required

System 4: Scans the environment for possible opportunities to add content. Decides on future content

System 3: Managing content, overviewing the operation. Decides on matters of immediate attention

System 3*: Informs System 3 about the operation's actual condition

System 2: Provides stability, filters the content. Communications medium between Systems 1 and 3

System 1: Receives and processes information and content from the environment

Picture 2: The Viable System Model

C
Collective qualifications of our team (Credentials)

Georgios Agiorgitis is a librarian, currently working for the National Library of Greece, in Athens. He is specialised in managing, cataloguing, archiving and preserving sensitive material.

Mohamed Bennani is a finance manager in an embassy in London. He specialises in measuring Financial risk and managing sovereign funds with large volumes of financial trades.

Mixalis Drakoularakos is a sales representative person in a large trading company. He is specialized in sales of products, management of several activities and archiving of various files of the company.

Paul John McConnon is a consultant for a large software company and consults on a virtualisation cloud technologies for the Software Defined Center (SDDC). His specialism is in Operations Management for intelligent cloud management operations.

D
Contributions

Georgios Agiorgitis	**Part of Introduction (1.1)** **Parts of Soft System Methodology (2.1)** **Viable System Model (3.1.1)** **Parts of debating (4)** **Parts of recommendations (5.2)**
Mohamed Bennani	**Table of Contents** **Report title** **Parts of Soft Systems Methodology (2.1.)** **SSM Phases (2.2.)** **Infusion / Diffusion (3.2.3.)** **Parts of Recommendations (5.2.)**
Mixalis Drakoularakos	**Part of Introduction (1.1), 1.2,** **Parts of Soft System Methodology (2.1),** **Part of Structure**
Paul John McConnon	**Parts of Introduction** **Rich Picture** **Application Portfolio** **DIKAR** **Digital Capability** **Parts of recommendations**

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