**Team Seventeen:** Amanda Goodridge, Will Schottler, Brandon Baugh

**Feasibility Report**

You should provide a feasibility report in the following format:

1. **Product:** A general statement of the product; give a brief description of what the proposed system will do, highlighting where the proposed system meets the specified business requirements of the organization.

The proposed system will be video walls to replace the old 70s looking publications displays in Life Science and Physical Science. The system will be a large touch screen or a combination of multiple screens that work together to allow students the ability to interact with the information that is displayed on the screens at the moment. For instance, there could be a rotating display of faculty and staff. If a student touches one of the faculty or staff members, their bio and a blurb regarding their recent research would appear on screen. Then the board could rotate to the disciplines and a student could touch one of those. Once a student touches a disciple, the screen(s) would show more information about that discipline, career opportunities, types of degrees offered, etc. If the system ends up being a video wall with multiple screens instead of just one huge screen, the project would be how to get these screens functioning properly together and how to display the information amongst multiple boards.

The ultimate goal of the proposed system is to modernize the NATS halls and bring them up to date with the 21st century. Our capstone team would need to creatively problem solve through cost estimating an entire package from hardware and possibly software. In addition, we would need to train the administration of this project and other faculty on how to use the system and update the software.

1. **Technical Feasibility:** Will the proposed system perform to the required specification? Outline technical systems options you propose to use, which will give a technical solution satisfying the requirements and constraints of the system, as outlined in the terms of reference.

The proposed system will be able to perform to the required specification as long as we have access to the information the dean and her team want to be displayed. What our capstone group does not know yet is if the school of NATS has this information located on a server or hard drive for us to access. If they do not have the information they want displayed already located somewhere, this will be another technical task our group will have to accomplish. We will not only have to create the software to show this information, but find out the information they want displayed and where to store this information.

Some of the technical system options we decide to use will depend on whether or not the dean of NATS and her team already have the information stored somewhere for us to access. Depending how this information is stored will determine what language we will use to display this data. In regards to technical support, we would be the main line of support until we graduate and the project is complete. Once the project is complete and our time at IU Southeasts is up, we will have trained the dean and her team on how to manage the system and use it properly. They will then be in charge of both the software and hardware support as needed. The hardware we need will depend on whether or not we go with one large interactive video board or multiple small boards pieced together. To close, the technical questions we currently have will be discussed in further detail when we meet with the dean and her team on September 18th at 3PM.

1. **Social Feasibility:** Consideration of whether the proposed system would prove acceptable to the people who would be affected by its introduction. Describe the effect on users from the introduction of the new system; consider whether there will be a need for retraining the workforce. Will there be a need for relocation of some of the workforce? Will some jobs become deskilled? Will the current workforce be able to perform effectively any new tasks introduced by the proposed system? Describe how you propose to ensure user co-operation before changes are introduced.

The proposed system would prove acceptable to the people who would be affected by its introduction because it would be new and exciting. Updating the walls in both Life Science and Physical Science with interactive video walls would introduce a modern feel to the buildings and inform students and faculty of events and information that would be beneficial for them to know. In addition, the effect on users would be that people would have to be trained on how to use the system and the administration over the system would have to learn how to update and manage it. This means that there may need to be an additional employee hired to manage these boards after our capstone group is finished installing and training users on how to use it.

As far as relocation goes, I don’t see there being any need to relocate the physical system or software once it is created. I also don’t see there being any jobs becoming deskilled because this is a new system and in fact, NATS may need to hire an additional employee to manage these boards once our capstone group is finished. To ensure co-operation before changes are introduced, we would work directly with the dean of NATS to see what she and her team want from this project and keep them updated with the major changes we are making. This would keep them in the loop as to what we are doing and how we are going about these changes. We could also have release dates where we write a report as to what changes we have made and then go through these changes with the dean of NATS and her team. Then, once the project is complete, our capstone group would perform a training session on both managing the software and how to properly use the new interactive video walls.

1. **Economic Feasibility:** Consider the cost/benefits of the proposed system. Detail the costs that will be incurred by the organization adopting the new system; consider development costs and running costs. Detail benefits that the new system will bring, direct economic benefits such as reduced costs, and indirect benefits, such as improved management information and better customer service. Illustrate the cost/benefit of the new system by applying a suitable cost/benefit analysis method such as the payback method.

The costs that will be incurred by the organization will mostly be from the hardware and potentially software for the project. There will possibly be development costs if the software has to be purchased, but the hardware will most definitely have to be purchased and properly installed. The system will provide indirect benefits such as information management and information distribution. Students and visitors will have easy access to information about faculty and programs, as well as an intuitive interface to navigate it all. There will be no direct economic benefits, as this will not reduce any costs, although there may be some benefit to the system. Easy access to information regarding faculty and programs can help a potential student access this information, and could prove beneficial in swaying their decision. This can potentially lead to an increase in students, which would mean more money in tuition.

1. **Market Research:** A comprehensive market research identifying a need for the product. Detail all market research you carried out, listing sources of information. Justify any conclusions you have drawn from your research. Identify the potential customer base for your product, together with evidence of customer need for the product. Describe how you propose to compete with similar products on the market.

The potential customer base would be any current/potential future students of IUS Natural Sciences. The need for the product is to modernize the halls of the natural sciences building. The halls use old 70’s publications, and are badly out of date. Bringing these up to date with modern touchscreen displays will look more appealing to potential students, possibly drawing interest of potential students. Since this is for IUS, it won’t be competing with other products on the market.

1. **Alternative Solution:** Consideration of alternative solutions should be documented. At least two alternative business or technical systems options should be considered. Detail the differences between these options and the proposed system. Justify your choice of the proposed system and the reasons for rejecting the alternative options.

The available solutions to the issue presented are very limited in scope, as the request is a touch screen system that students can walk up to and interact with around the building. Alternative to this would be static images that can not be interacted with or paper posters like we already have. There are different sizes of touch screens, which will be looked at once the requirements are better layout for us.

1. **Project Risks:** To have success in managing a software project, the project manager needs to understand the nature of software risks, which can be defined as uncertain events or conditions that, if they occurs, can have a negative effect on a project outcome. List and discuss some the risks associated with this project.

Some risks associated with this project are database response times or availability. This also includes having a seperate database that the customer would have to enter the data in a second time if the data they want displayed is already in a database somewhere.

There is also the risk of response time to when an input is touched to when it responds to the touch. This can be mitigated with properly code, however it does need to be watched out for. An issue that may occur for the customer is proper mounting of the screens so they do not fall and either cause damage or damage themselves.

At this point, all of the planning (personnel and time frame) for the project has been done and if the feasibility study has shown that the project is likely to succeed within its constraints, then it only remains for us to start the requirements analysis and thus proceed with the project.