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Crowd Pleaser: Carnival of Delights

Post Mortem

Cycle 2 Fall 2001
1. POST MORTEM: CARNIVAL OF DELIGHTS

1.1. The Cycle

At the beginning of the project assignment, we were a little uncertain as to what the actual goals of the project (prescribed by the directors) actually were. With a paper by Dan Maynes-Aminzade, and a contact to access his legacy code, the prompt was to do something new and interesting with the technology, to take it to a new level. This open-ended assignment was both a blessing and a curse. It let us free our minds of any expectation of what could or could not be done, and allowed the creation of some pretty interesting ideas. On the other hand, it made it easy to run with ideas beyond the scope of the cycle.

For the first week we spent several sessions brainstorming what to do with the technology. There was a suggestion made by the co-directors that a new planetarium had been acquired by the Children’s Museum of Pittsburgh, and perhaps the space could be used for some sort of audience interaction. The team took an afternoon visiting the Children’s Museum, and while there we had a pretty substantial think session on what sort of experience to produce. The idea was raised of having a carnival-like setting, and an interactive space where people could play games that relied on the technology, different virtual booths that made use of computer vision. This idea excited the team, and as large as it was, it seemed feasible and a fully orchestrated infrastructure grew up around how to build a truly interactive gaming and also theatrical experience. Of course a space would be required to build this vivid experience into, so the next two weeks the team desperately sought to find a space where the installation could go. Everything from the Children’s Museum, to a warehouse, to a shooting range, to the faculty advisor’s garage was considered, and it seemed to us that there would be a space developing quickly for production to inhabit. Unfortunately, all the shaky testimonies and allocations fell through, and we were left with no space to build an experience in, relegating any testing or development to sporadic rentals of McConomy auditorium or the ETC lab. It was close to the three and a half week presentation, and though it wasn’t fully realized, there was little hope of reaching anything near the multisensory presentational experience initially planned.
From the initial development stages for an augmented virtual space, resources and time went into planning and researching methods for ambient scents, textures, visuals, and sounds. Floor plans were constructed and materials were purchased. All of this though was left by the wayside after the midcycle presentation, as we struggled to collect our focus and build an engaging experience with high stakes and interactivity, despite being confined to an auditorium-like setting with little outside budget for stage augmentation.

Early on a pivotal decision was made whether to implement the virtual world with two- or three-dimensional graphics. The argument for 2D was that it was simpler, lighter, less prone to error and allowed more time and resources to consider how to make the experience engaging outside of the actual rendered game. The position for 3D was the animation was easier, the graphics were more flexible, and more impressive immersion could be achieved. It was also debatable how much the 3D learning curve would affect development. In the end though, it was voted upon to implement the world in 3D. The LithTech rendering engine was the obvious choice for use because the programming lead had previous experience with it.

After the midcycle presentation, morale was low and it was unclear exactly how to move on. Initially, three different games had been planned from a set of about a dozen that were devised and worked through, each utilizing a different basic type of computer vision. Now, the extra two experiences were cut, and the original, Quench-a-Clown (now Douse-a-Clown), was made the prime objective of the cycle. Some of the strongest criticism received after the midcycle presentation was that the group’s intent and projected artifacts were unclear, and that the stakes weren’t high enough for the game to be entertaining. We tried to grapple with tangible methods of making the payoff for winning more defined, but ultimately financial and resource issues cut the physical routines that were devised, leaving the responsibility of making an end-to-end experience entirely on the shoulders of the Virtual World committees.

Now roughly four or five weeks into the cycle, the stage and sensory committee was unofficially dissolved, and the drive intensified for a high-quality game that could scale to large (<=200) audiences. The last two weeks were a rough stumble towards reaching a finished product. A large-scale user test was planned for McConomy at the end of week five, but it was cancelled because the laser pointers, ordered two weeks before, still had not arrived, and the code was not far enough along for public use. The following Friday several user tests were planned for McConomy, and one was executed.
with roughly fifty laser pointers. The results were largely negative as the payoff was not completed, and the sense of agency was especially coarse.

At the end of the cycle, deadlines for documentation and code-complete slid or were met less than what was projected, and it took several days of long hours in development in programming and art to get the system ready for a final user test in the lab Tuesday night. Wednesday was spent spending more time increasing the quality of the visuals and adding more bells and whistles to the code.

1.2. What Went Right

1. User testing.

In the last several weeks of the cycle, user testing really helped increase the level of quality for the game. The user testing committee constructed a good questionnaire, and the results made it clear that an increase in agency and payoff for the game would greatly improve the guests’ ratings. One of the key findings was that even though the game had been set up to support collaboration (in fact it required it), this lessened the agency and left the users looking for more of a direct connection to their input to the game.

2. The home stretch.

Although project development slid into the last day before the presentation, a lot was accomplished in the last week of the cycle. The quality of the game and the visuals improved immensely, and documentation was fleshed out consecutively with the website’s tweaking.

3. Game visuals.

The models, the textures, and the animations (both keyframed and LithTech) really made the game. They served the theme and concept well, and the characterizations made the interaction with the game much more personally identifiable.

1.3. What Went Wrong

1. Scope issues.

Although nearly all projects go through a paring-down of scale, Carnival of Delights experienced it to a massive degree. Because the focus of the group shifted and narrowed so late in the cycle, development time for the final delivered experience was
lost, and completion of the game really came down to the wire, under a tremendous amount of pressure. This pushed a lot of features off the table, and set the user testing schedule back until late into the game.

2. **Resource management.**

A pivotal point in the cycle occurred when the shipment of laser pointers needed for input never came through. The critical input devices were ordered on November 20th, but didn’t show up until nearly three weeks after being ordered. This killed a critical user test scheduled for McConomy in week five, and almost ruined the test for week six. Ultimately, fifty laser pointers were purchased from various vendors around the Pittsburgh area, and at a significant loss. Though partially the fault of the vendor, closer tabs needed to have been kept on tracking the package to ensure earlier delivery.

3. **Communication / Risk management.**

A lot of time was lost between groups in synchronizing the game’s development. Although a rapid prototyping approach was intended initially, testable versions were not ready until late into the cycle. The amount of time needed to develop robust, concrete artifacts was underestimated, and so delays slid from week to week because things simply took far longer than anyone expected. A more honest level of communication between all parties was needed, and a more conservative view of what could be realistically produced given the time constraints.