# Network Institute Tech Labs
Newsletter May 2013

Introduction

The past half year has been a very busy period for the Tech Labs. In the first four and half months of 2013 the Tech Labs have been in use for a total of over 2300 hours or over 300 days. Most of this was due to research being done and the MediaLab was the absolute winner!

When we view the use of the labs over the past few years (Figure 1) it is clear to see that the merger of the three Tech Labs into one unit within the Network Institute and adding full-time support for users has paid off. There is a steep increase in use starting just after the summer of 2012 when the Tech Labs were formally combined.
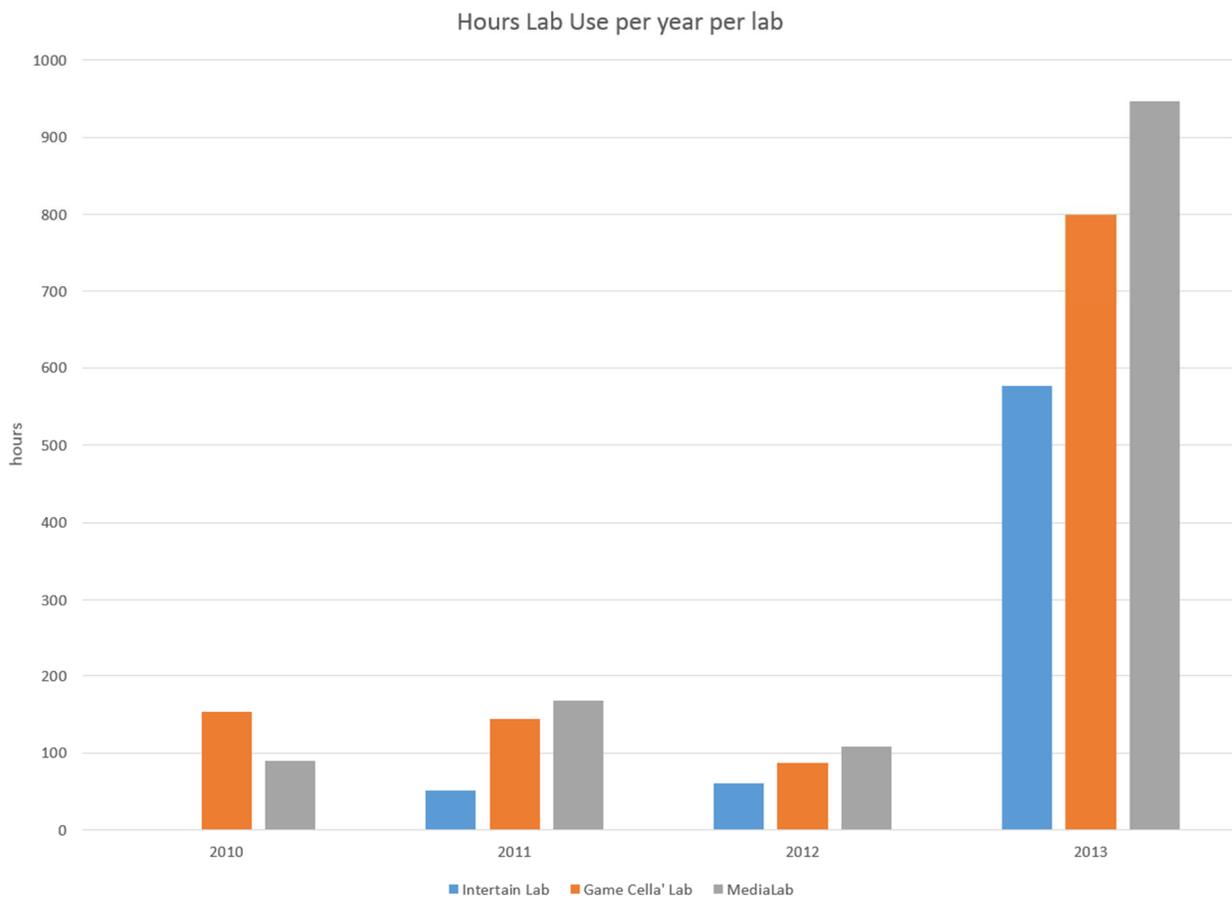
Figure 1. Hours of lab use per year per Tech Labs. Note: for 2010 there is no use data for the Intertain Lab. Note2: if a Lab is used double (or even triple) at one time, those hours are counted double (or triple).

Thanks to this new situation researcher, teachers and students are starting to use facilities and locations that they weren't using before this time and more and more people are using the Tech Labs not only because there are three physical laboratories, but also very much because of the support they can get. In the past half year many users have received advise, were helped in setting up their experiments, had custom software made for them, enz.

So a big Thank You to all the people who have been using, are at the moment using and will in the future! Please tell others about your experience with the Tech Labs so that many more will be able to use state-of-the-art technology to do their research and teaching.

In the rest of this News Letter we will show you some examples of projects that have been running the past couple of months.

Marco Otte

Recent research in the Tech Labs

Active2Gether – Intertain Lab

The Active2Gether project aims to develop smart coaching strategies that integrate social networks and modern technology (e.g. smartphones) to empower young people to be physically active.
The Intertain Lab was used as location for focus group discussions. The Intertain Lab offers great opportunities for recording, monitoring and creating a safe area for the focus groups discussions. It provides a relaxing and attractive atmosphere, which is very important for focus group discussions, whereby the participants have to feel comfortable.

Researchers: Danielle van der Laan, Julienka Molle, Anouk Middelweerd, Tim Velten

Back to the Future – Intertain Lab

This experiment examined the effects of movement on the processing of information. To gain a better understanding of this phenomenon the Tech Labs created a custom iPad application "Back to the Future" that was used in three different conditions. One in which users were sitting, one in which they were walking around and a third in which users were using a home trainer.
The application integrated Qualtrics surveys, custom interactions and server-based data storage.

Researchers: Christian Burgers and Guido van Koningsbruggen

Critical Response v2 – Game Cella' Lab

Excessive alcohol consumption is a major societal problem, especially in adolescence. Similarly, excessive (unhealthy) food consumption poses a major societal problem in youth. As both behaviors have addictive aspects, they are combined in this study.

Several models of addiction suggest a way to counter the development and maintenance of these addictive behaviors. This can be done by restoring the imbalance between weakened cognitive control functions and strong automatic reactions to drug-related cues.

This experiment made use of an existing custom made high-end video game environment called Critical Response (made by ICT3DMedia). In this game users stand in front of a large (3m) projection screen with a modified rifle. The rifle has a so-called laser bullet the projects a small red dot of light on the screen when the user pulls the trigger. This creates a very realistic first person shooter environment.

The Tech Labs modified the code of the game to adapt it to the specific needs for this experiment.

Researchers: Elly Konijn (VU), Wouter Boendermaker (UvA), Jolanda Veldhuis (VU), Johan Hoorn (VU)

Video games and moral reasoning – Game Cella' Lab

This Master Student experiment researched if and to what extend moral reasoning plays a role in playing video games, in this case Call of Duty: Modern Warfare 2. Because the video game requires a fast computer with a strong video card, only the computers in the Game Cella' Lab were powerful enough to use in this experiment.

Researchers: Giorgio Lion Sjin Tjoe, …, Marina Krcmar

Social Motivation – MediaLab

Social motivation rests on the idea that individuals can be either pro-social or pro-self motivated. Pro-social individuals are usually concerned with collective welfare, joint success and strive for harmony in the group and cooperation. Pro-self individuals usually ignore others' needs, interests and beliefs as long as their own interests are satisfied. Out interest in this study was therefore to investigate how social motivation affects information sharing.

For this experiment the Tech Labs recreated part of the survey in an HTML5 web application as the Authorware original posted too many problems to post on-line. Through integrating Qualtrics, the HTML5 application and several PHP scripts, the experiment is now being done on-line.

Researcher: Nicoleta Balau

Recently provided services by the Tech Labs

Processing complex meta-data information

Professor Cuijpers at the psychology faculty is collecting a large set of meta-data from publications made in clinical psychology. This dataset is fast growing and contains a large number of variables making is very difficult to access the data.

To alleviate this problem the Tech Labs constructed a database in Filemaker Pro (easy access, easy to learn for users, multi-platform). The database enables researchers to query the dataset in an intuitive way and makes data entry much easier.

This is one of the first paid services provided by the Tech Labs, making Tech Labs services available to other researchers even though they might not officially be part of the Network Institute.

Researcher: Pim Cuijpers

Providing room for robotics – Game Cella' Lab

Master student Boris Nelissen is researching swarm behavior in robots. For this he is going to program several kilo-bots with algorithms that were previously tested in simulations. The Tech Labs was able to provide Boris with a workplace with enough space and a computer to conduct his research.

Researchers: Boris Nelissen, Evert Haasdijk

NU.VU – Future housing for the Tech Labs

In several years time there should be a brand new building next to the InHolland building on the VU campus, the NU.VU building. Not only will sections of the Exact Sciences Faculty be housed there, it will also be the home of a part of the Amsterdam Faculty of Science together with the UvA, and last but not least it will be the new home of the Tech Labs.

The idea is that the UvA will also bring over several labs, both for research and education, roughly doubling the number of Tech Labs! The best will be that the Tech Labs will all be located in one building instead of spread out over the campus. This will mean faster support, even higher flexibility, more efficient use of equipment and knowledge and the opportunity to create even better Tech Labs based on our current experience.

Currently the Network Institute is working hard to make sure the Tech Labs will receive all the facilities it needs to facilitate staff and students in the best possible way. We want the Tech Labs to be prominently present in the new building. The Tech Labs should be visible as soon as you enter the building and not only be readily accessible, but also show to everyone that the Tech Labs are a fantastic facility for doing research and education that we all can be proud of, the Network Institute, the AFS, the faculties and the whole VU University.

Tech Labs during the summer period

Although summers are usually quiet on the campus, this doesn't mean the Tech Labs will be off limits during July and August. The access and support for the Tech Labs will require a bit more advance planning, but if you think you want to use any one of the Tech Labs during July and August

or need support, please notify Marco Otte (m.otte@vu.nl) a.s.a.p. so arrangements can be made to ensure you can use the Tech Labs without any problems.