

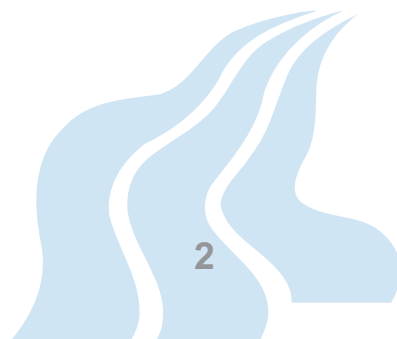


**For Multimedia Designers  
and IT graduates  
(Datamatikere)**

*English version*

# medialogy

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|                                      |           |
|--------------------------------------|-----------|
| <b>About Medialogy</b>               | <b>4</b>  |
| <b>Semester 3</b>                    | <b>5</b>  |
| <b>Student talk</b>                  | <b>6</b>  |
| <b>Semester 4</b>                    | <b>7</b>  |
| <b>Semester 5</b>                    | <b>8</b>  |
| <b>Semester 6</b>                    | <b>9</b>  |
| <b>Study form</b>                    | <b>10</b> |
| <b>Student talk</b>                  | <b>11</b> |
| <b>Do your own developing design</b> | <b>12</b> |
| <b>Student talk</b>                  | <b>13</b> |
| <b>BSc program overview</b>          | <b>14</b> |
| <b>MSc program overview</b>          | <b>15</b> |
| <b>MSc program</b>                   | <b>16</b> |
| <b>Semester 7</b>                    | <b>17</b> |
| <b>Semester 8</b>                    | <b>18</b> |
| <b>Projects</b>                      | <b>19</b> |
| <b>Where to study</b>                | <b>20</b> |
| <b>After graduating</b>              | <b>22</b> |
| <b>Practical information</b>         | <b>23</b> |

The Medialogy education can be completed at both Bachelor and MSc level.

If you are a “Multimediedesigner” or “Datamatiker” after 2 years of education you will obtain a degree as Bachelor of Science, Medialogy.

You can also choose to continue your education for another two years to obtain a MSc in Medialogy.

## About Medialogy



### The Cyber Angel, a student project

*The Cyber angel is an angel, who is able to listen to people's thoughts. The project was inspired by Wim Wenders' angel in "Wings of Desire".*

*People wearing the angel's wings become suddenly enriched with the special power of reading other people's mind. How is this possible?*

*The motion of people walking in front of the angel is tracked by using a small webcam. By using algorithms learnt in the computer vision and motion capture class, it is possible to program the computer in such a way that it can follow the motion of people in real-time, almost like a human eye would do when looking at people, who walk by.*

*The motion of the people is connected to pre-recorded thoughts. These recorded spoken lines are manipulated in real-time in such a way that when people walk away, it sounds as if the thoughts are dissolving, and when people come closer, thoughts become louder and louder. Such thoughts are played through the Angel, by using small hidden loudspeakers embedded in the wings. This way, the person wearing the wings feels as if he or she has a special power: the possibility to listen to people's thoughts.*

### About Medialogy

If you are interested in the technology behind state-of-the-art movies, music, art and entertainment, and you want to learn how to use and develop this technology yourself, Medialogy is the education for you.

Medialogy focuses on education and research, which combine technology and creativity as means to design new processes and tools for art, design and entertainment. The education meets the requirements of our contemporary media industry.

In authoring and designing Interactive Media, it is becoming increasingly evident that the largest challenge lies in bringing together different disciplines. Medialogy's interdisciplinary approach acknowledges that mastering and combining such a variety of disciplines requires a strong technical foundation, both in theory and in practice.

At Medialogy we ask questions like:

How can we make computer games more fun to play and more interactive?

Can we overcome the borders between man and machine?

Can we design new techniques for animated movies that make the characters more lifelike?

Can we develop new musical instruments? Perhaps some that people without prerequisites in music can use?

You will learn about film and music technology - and how computer science plays a part in the media productions now and in the future. You will also learn how you can use technological advances within Science, when you produce computer games or computer generated animated movies in 3D environments - the games and movies that do not hesitate in involving the user and viewer. Furthermore, you will develop your insight in to creative processes and the thoughts that come before media productions and other arts take shape.

The education is based on studies of human and computational perception, audio-visual effects, animation and computer games, immersive systems and ubiquitous computing.

### Semester 3: Human senses-digital perception

One area, which is often general overlooked when talking about computers is the increasing use of computers to monitor and interact with the environment.

Many people have an idea of how surveillance systems work, e.g., that they are monitored by a video camera or a microphone. What few people know however is that to some degree it is possible for computers to sense and perceive actions, taken in an environment by a person. Currently, wide fields of systems take advantage of such techniques, ranging from computer games with cameras, making games more interactive - to monitoring applications, alerting for example drivers of cars that they show physical signs of being tired. Other examples are interactive paint programs, which based on body gestures allow the painter to control brush movements with his body.

Indeed computer vision, sound analysis and the studies of human perception are becoming increasingly important as we try to make computers do more tasks for us and be more interactive with us.

In order for computers to learn such sensing, it is necessary to teach computers how to simulate human perception processes. Did you know, for example, that most of the filters you are using in your favourite graphics application or sound editing software are replicas of human processes?

During this semester you will learn about the human senses and how digital filters imitate processes from humans, and how they work. You gain in-depth knowledge of how human data can be processed - and how the computers can interact with what they see and hear.

The project that you will make this semester is supported by classes in human perception and computer perception. Furthermore to help your project you will have classes in software design e.g. multimedia design and how the mathematical problems of your project can be solved.

#### Freja Boman - 4th Semester

*I have never doubted that I wanted to work with computers; I have just been confused about which direction to choose.*

*I started out with an education called "Digital Media", which was web design, 3D animation and programming. Then I studied at the Multimedia Designer education.*

*Here I realized that my main interests were to be found within the programming area, and after graduating as a Multimedia Designer, I searched for an education where I could continue developing the skills I had acquired as a Multimedia Designer. At this time my programming teacher mentioned the Medialogy study, which I found interesting.*

*Basically, the Medialogy study gives me the chance to become a more skilled programmer, while at the same time, opening my eyes to new areas that I would like to explore - for example sensor technologies.*

*Finding a time worthy and serious education within the realm of digital development is difficult. Even though the Internet and Digital Medias have been around for decades, the cutting edge moves very fast and only few educations can manage to keep up. This is where Medialogy succeeds.*



## Student talk

### Lucas Hansen - 4th semester

The transition between Multimedia Design, "Datamatiker" and Medialogy

*Reading titles such as "Multimedia Design" and "Medialogy", it was initially hard for me to differentiate between the two. Working with media in any or all forms, was always a passion to me. Very soon I found out that the Medialogy study is far more versatile than what I had expected. The first time you pick up the material, or listen to the projects done by other students, you will know this.*

*Reflecting on the Medialogy study, purpose becomes the ruling factor. As a Multimedia Designer or "Datamatiker", we have been shown how to use applications to develop a project. At the Medialogy study, we are taught how to develop the media from the bottom up. The difference means that before you will be introduced to terms such as gestalt laws at the Medialogy study, you will learn how and why these work. Before we create anything visual, we need to discover how the eye works and how the brain interprets these signals.*

*Medialogy reaches a high level as an university education. By going deeper into the individual subjects it ties them together and allows you to develop a wide understanding of media. At Medialogy you are not taught how to use an application, but why.*



*Comparing one education to the other, there is one final thing that needs mentioning. Working on Multimedia Designer or "Datamatiker" projects, the objective focused on a business aspect. The projects developed, relate a product to the end user. At Medialogy, you develop projects - not to sell, but to learn about the technologies and theoretical concepts involved. Be it a new "Human Computer Interface" or an experiment in digital perception, Medialogy focuses on bringing art and engineering together within a digital framework. While serious in nature, some of the projects done here are really weird and a whole lot of fun.*

*Taking all these differences into a larger perspective, they still remain minor and being what you can expect when choosing a university-level education. The level is higher, the focus is broader, the tempo is faster and the material is deeper, but the method of teaching is still the same.*

*The first half of each semester is stocked with lessons and during the last part, groups set out to develop their projects. Aalborg University ties this into their "Problem Based Learning" paradigm. It is a handy tool for managing group work, renowned throughout the industry and readily supported in the student/supervisor interaction.*





### Semester 4: Interface design and sound effects.

Microprocessors and sensors are found in many applications in modern society. At the same time devices become steadily smaller, and we do not take notice of how big a part of our life they become. Using sensors is sometimes a preferred way to communicate and interact with a computer or handheld device, since the accuracy of the data is very high. In other words, where some interaction with computers is not possible with the use of cameras and audio, tangible objects may be the right solution.

The applications of sensors and microprocessors are many and for entertainment products they introduce a whole new method of expanding creative interaction with the users.

In this semester you will learn how these technologies are leaving the computer and becoming embedded into our everyday life. For example, imagine that you design an interface, which you can hold in your hands, and use to control virtual characters in a game - or play new electronic musical instruments. Or think about your mobile phone and imagine it as an object, which allows you not only to talk to your friends, but also to play and manipulate interactive multimedia and other devices in your environment.

During the semester you will learn about the study of sensor technology and you will develop your skills in building, programming and experimenting with interactive interfaces. You will design objects for sensing and displaying information. You will build new devices with embedded sensors, electronics, micro controllers and communication, and in the end you will be able to make it interact with sounds and interactive sound models that you have created.

The project will be supported by courses in sensor technology and a continuation of the previous semester is course in computer perception with a special focus on audio design. Furthermore, your skills will be supported when it comes to programming and solving the mathematical problems of the project you are creating.

### Digital Voice Trainer, a student project

*In this prototype, a microphone was used to control the vertical movement of a character on the screen. The students used pitch detection to calculate the movements of the character. A game/trainer such as this has many different implementations, such as helping singers train their voices. Future expansions may include speech training. The objective of the game was to steer the character into an opening on a beehive, and avoid obstacles that were in the character's path.*

*The accompanying report went into the details regarding the development of this project. It also covered many of the benefits, and risks, by exposing children to computers and IT-technology at an early age.*

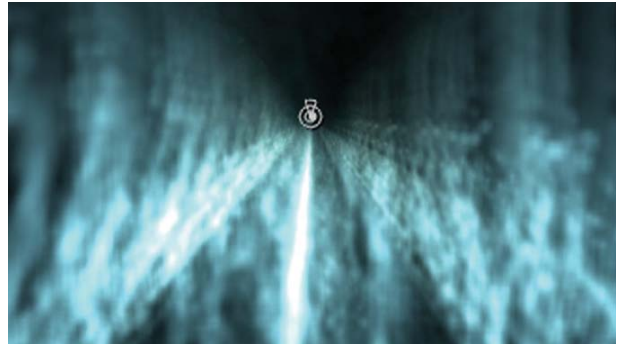
### Semester 5: Animated Environments and Visual Effects

Within the film industry, the gaming industry, and the interactive arts, visual effects are evolving. Computer graphics have found many applications, not least because of the extended creative possibilities offered by 3D computer generated visual images.

In our everyday life we are surrounded by visual effects, and often we are not even aware of them. Everything from major blockbuster movies to TV-commercials is produced with touches of computer graphics. Still, profound ideas and complex problems within computer graphics are yet unsolved. Furthermore, the creative wishes from the producers sometimes collide with what is technologically possible - or the technological demand for a scene to be shot makes little sense from a filmmaking point of view.

During this semester you will learn the technology supporting the creation of computer generated visual images, and how it can be supporting or expanding the screen media types available. Furthermore, you will learn techniques and aesthetics, which are used in today's visual and sonic arts. For doing so you will also be introduced to a historic framework for the modern digital art of computer graphics.

The project of this semester is supported through courses, involving techniques in the field of virtual photography and computer graphics. In order to give your project input from some of the aesthetic problem areas, you will also learn techniques and aesthetics of animation and film media. Finally, the mathematical problems, you will encounter during your project, will be supported.



#### A word from the study advisor

Some new applicants for Medialogy often think, that they are supposed to know everything before they enter the study - or they believe they have to be perfect at all disciplines.

Nothing could be further from the truth. When accepting students from the Multimediadesign and the "Datamatiker" educations, the University gives credit for your previous education, but we do not expect you to already know everything. You have a good basis for further education - and Medialogy builds on that basis.

Medialogy provides a firm and solid education where you can develop your skills - in an environment where nothing comes easy, but where you have to work for understanding the topics.

In an education such as Medialogy, where so many disciplines come together it is almost impossible to be perfect at everything. However, supervisors, lecturers and the projects ascertain that you will get a sufficient level in all disciplines while being good at your special abilities.



**Semester 6: Computer Games and Immersive Technologies**

Computer games have come a long way from their text based starting points, which many people today do not even remember. Massive computers are readily available for home users, making it possible to create very complex computers games. However, gorgeous graphics can still not make up for poor game play or bad interaction with the user.

Still computer games seem to develop in rapid speed, offering increased artificial intelligence, providing you with a computer opponent, who can make its own decisions.

To make game play fun, some emphasis has to be put on decision making strategies to allow your game to have a “framework of thought” to work within. However, you can also use other means of getting a richer and more enjoyable experience - for example, by extending the communication with the computer, so that it reacts to you and your movements.

As this is the last semester of the bachelor study in Medialogy the project focuses on Computer games, and how we can develop new concepts, technologies and ideas for interaction with games. The choice of this semester theme is not random. Computer games is a growing field, which allows you to put everything that you have learned during your years of studies into it. Be it the humanities inspired classes on film-making or how to use sensors to control your computer agent, everything seems to be applicable within games.

Your bachelor project will be focused upon how to develop advanced computer games or interactive systems, which extends what you normally see on the market. Your project is supported through classes in 2D and 3D computer games and, with classes on interactive immersive systems.

### Study form

Maybe you have already heard of the "Aalborg-Model". This model has contributed to the fame and recognition of Aalborg University. Since its foundation, Aalborg University has adopted a problem and project-oriented approach.

From the first semester, you will work together in groups to solve specific problems. This cooperation gives you the possibility to engage in larger and more complex problem areas than you could tackle on your own. Each semester is divided approximately equally between projectwork and classes.

Each semester starts with the forming of new groups of about 5-7 persons. When this has happened the project group will be assigned its own workspace at the university. Additionally, everybody gets their schedules for the semester, as well as catalogues of project proposals, course description, literature lists and reading guides.

### Classes and assignments

You will experience that, generally, the courses are theoretical and that the tempo during lectures is high. Typically, a class lasts 4 hours, with the lecturing part taking 2 x 45 minutes. After this, the lecturer and assistants will go around to the group areas to help you with assignments for the classes. This means that you as a group will never be stuck while solving an assignment, and that the lecturer is able to explain parts of the class in another way, if you have misunderstood something during the lecture.

At the end of the semester some courses are evaluated through the projectexam (PE-courses) and others are evaluated through individual exams (SE-courses).

### Project work

To do a project takes a lot of work, and that is why you will not be alone in doing it. Groups choose their themes and will have at least one supervisor connected to them. The supervisors are lecturers and researchers at the university, and they will help you with the tough decisions. They will suggest good ideas concerning both technical problems and how you communicate your project in the final report.

Among other things working in groups strengthens the contact between the students and the supervisors at Aalborg University. The supervisor is there to support your group on your journey through complex problems and to guide you in the right direction.

In the first semesters of Medialogy, the projects are of a nature that allows you to develop fundamental skills. However, on the later semesters, you get the opportunity to work with and solve problems for the industry or perhaps develop your own area of research.

At the end of each semester, the group members defend their project at an oral exam, where each group member's performance is evaluated by the supervisor and censor.





## Student talk

### Brian and Adam Johansen - 8th Semester

*Studying at Aalborg University can be quite a change for some, due to the problem oriented project work.*

*The groups we have been in have used different tools to manage our differences in personality. These tools often vary from group to group, because some need a leader figure and tight structure and some can manage with a democratic loose structure.*

*Our latest experience as a group has been a joint venture, using our different competences to come up with creative solutions to a defined problem. One of the main areas in which we succeed, is trying to push the envelope of what can be done within the given timeframe of the project. This of course means that we constantly move on a thin line, where one false step can produce failure.*

*The acquired knowledge for our projects has been gained through extensive research and discussions of the themes. The lectures that we have attended have provided us with tools and applied theories, that have inspired or been utilized under our project development.*

### Teachers are researchers

To ensure a high level of quality in teaching, the staff behind Medialogy consists of a team of experts from Denmark and abroad, all of whom have graduated from prestigious universities in Europe and the United States, such as Calarts, Stanford University and MIT. In other words, people that have a high level background with insight into a field that is constantly developing.

With this young team of motivated teachers and researchers, you can be certain that you will learn the state of the art skills and techniques used in the art and entertainment industry. Furthermore, the staff of Medialogy collaborates with other universities worldwide, regarding educational aspects as well as in performing research and development.

Research projects are carried out on visual perception, cognition and modelling, virtual cinematography, sound design, animation, interaction design, real-time interactive systems for people with disabilities, poetics of new media and computer games.

### An international atmosphere

Literature and classes at Medialogy are carried out in English, as the teachers are mainly from abroad, and the newest literature is not produced in Danish.

At first most students are a bit nervous about communicating in English, but in practice you will not find it troublesome. Usually, the biggest cliff is encountered the first few weeks, where all new students are nervous about speaking and writing in English - however, our experience is that everybody soon adapts.

Furthermore, students use the fact that they have become comfortable in spoken and written English, when they finish their education and hunt for the first job.

### Studying abroad

All students have the possibility of following a semester at another university or internship in a company abroad. In the sector that Medialogy belongs to under Aalborg University about 10% choose to visit a foreign country to study on the 9th or 10th semester like the United States, Australia, Spain, Italy, Germany, United Kingdom or France.

## Student talk

### Sascha Lyngø - 8th Semester

From visual communication to pervasive design  
How the BSc in Medialogy was the next logical step education wise for me...

*Since I finished my education in Multimedia Design in December 2000, I found it difficult to get the kind of job that I really wanted. At the time that was graphical designer and web developer.*

*In 2002 I started my own one woman company, designing logos, paper lines, and websites and teaching visual design. But I wanted more out of my professional life. Running a company alone can be uninspiring at times. So I decided to get an education that would keep me in the lead of digital design and computer technology, hoping that it could get me a post in a pioneering technical advanced company.*

*I heard about Medialogy through friends from my old education and immediately found it interesting. I liked the idea of bridging humans and computers and the thought of going beyond traditional multimedia design using advanced techniques of processing, stretching the terms of human computer interaction (HCI).*

*The Bachelor in Medialogy makes room for different types of people. It actually embraces diversity, whether you are into working with sound or visual stimuli, approach things from a humanistic or technical side, have the ability to see the broad perspectives or enjoy fine tuning the details.*

*For me the Bachelor simply wasn't enough as I wanted an even deeper understanding of computer science and its applications. So today I study the MSc in Medialogy. I have found that my future, hopefully, will be the field of Pervasive Computing and to be more specific, it will be related to teaching or entertainment purposes, hopefully with a touch of clear communication and visual aesthetics.*



### Develop your profile

Medialogy is an education, which bridges computer science, design, engineering, humanities and art. It sets itself apart from traditional education by focusing on the computer as a tool that supports creativity and design. Because of its interdisciplinary nature, you will follow courses from both technical and creative disciplines. You will use this knowledge in your project work, and by doing so, you will gain experience in approaching problems from an interdisciplinary perspective. For example, a project could be the design and implementation of a computer game, which monitors the visual physical movement of the user, or the design of a motion tracking system, in which human motion is used to modify computer generated sounds in real-time.

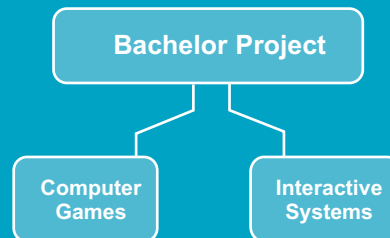
As you progress through the education it is normal that students choose to aim their projects in a personal direction, fulfilling their interests and aims for the future. While working with themes, it is very common that students choose to develop a description of projects and ideas, which is unique.

This is an important way of working with projects at Medialogy - because even though supervisors help in defining projects for the semester, it is you who must put "that extra something" into it, for it to become exciting to work with over a longer period of time - and for the world to see once you are done.

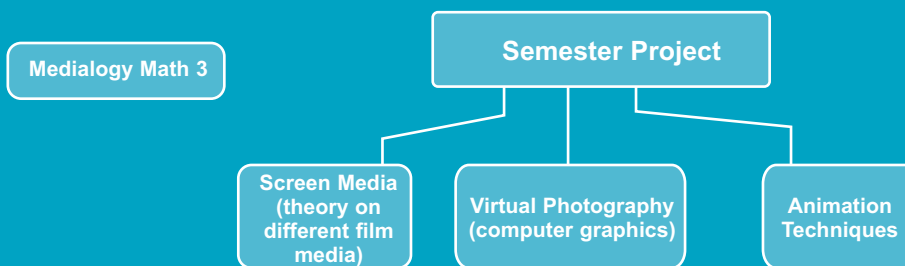
At Medialogy we encourage you to develop your own profile over time. While the education provides you with the firm background in several areas from science and humanities, it is you, who in the end choose the framework for such knowledge. It is also important to realize that while companies of today have a high level of education as a prerequisite for hiring staff, they focus very much on the individual approach taken by students in combining education and interests.

## BSc program overview

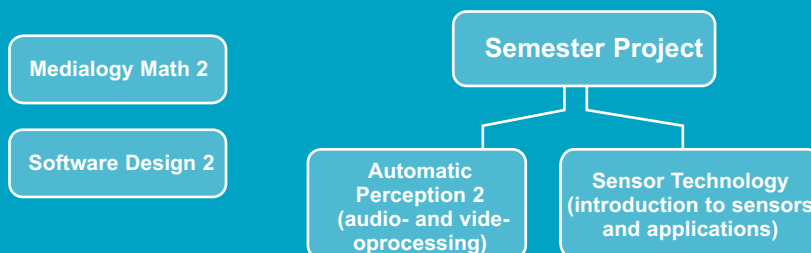
### 6th Semester "Computer Games and Immersive Technologies"



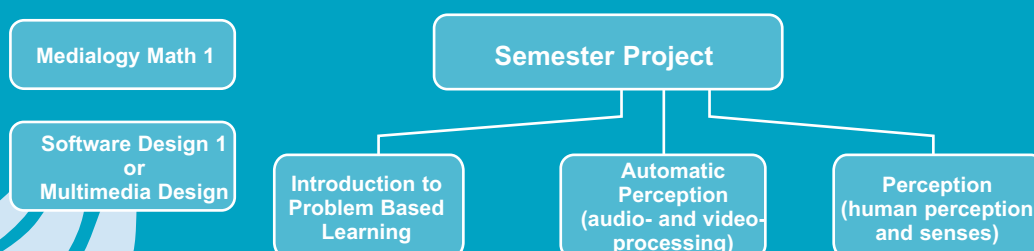
### 5th Semester "Animated Environments and Visual Effects"



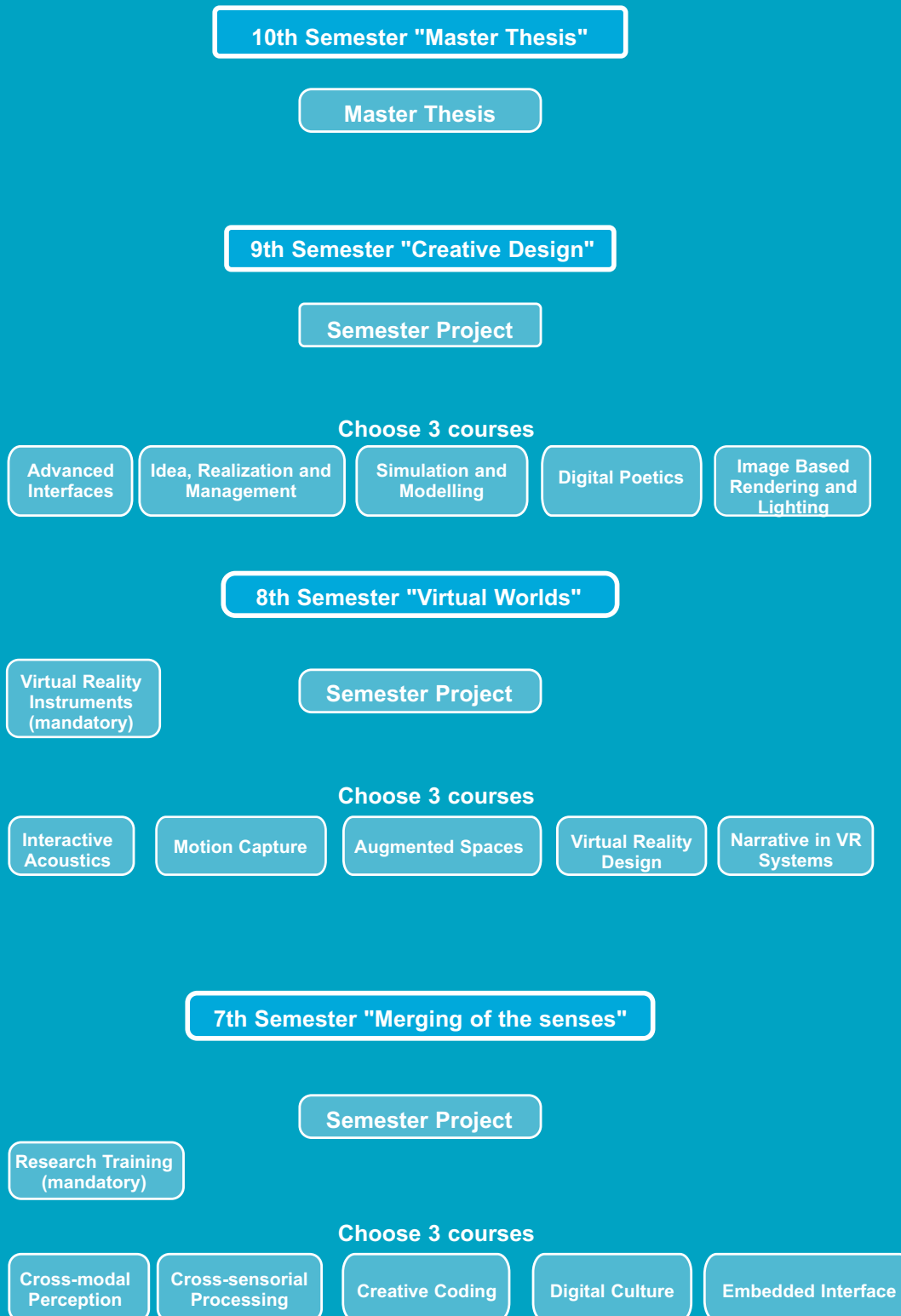
### 4th Semester "Interface design and Sound Effects"



### 3rd Semester "Human Senses - Digital Perception"







mediaology

## MSc program

### MSc Medialogy (Cand.Scient)

While in the Bachelor study all classes are mandatory, in the Master's program you can choose among several options. As a Medialogy MSc student, you will be able to specialize in one or more fields of Media Technology.

Each semester of the MSc has a specific theme, and you are able to choose among several courses, which fit the themes.

During the 4th Semester, it is possible to specialize and choose one or more fields related to Medialogy. For example, if you are interested in virtual reality or interactive 3D sound, you will be able to learn the state of the art techniques used in industry and art and try them out in the high end virtual reality facilities present in Aalborg (CAVE, Panorama, 3D auditorium) or in the 3D visualization and surround studio present at Aalborg University in Copenhagen. If your main focus is studying and tracking motion, you will be able to experiment with the state of the art motion capture facilities adopted in movies and videogames.

The Medialogy MSc engages in research, analysis, evaluation and design of cutting edge technologies such as:

- Advanced interfaces**
- Mobile computing and hand-held devices**
- Collaborative learning environments**
- Intelligent agents**
- Interactive toys**
- Sensing technologies**
- Virtual reality systems**
- Motion capture systems**
- Cutting edge sound and visual effects**



### Niels Böttcher - 8th Semester

*I have a great interest in advanced digital performance art projects and new electronic music. I also run a record label for electronic music. This is why I chose the Medialogy education at Aalborg University. The topic that I found the most interesting before starting the bachelor was motion tracking and interactive soundscapes.*

*I have been hoping to combine this deep interest through working with the development of sound for computer games, new musical instruments, commercials and so on. Because of this the MSc in Medialogy is perfect for me.*

*At the moment I'm studying interactive acoustics and virtual reality design. From these two topics I'm hoping to be able to develop intelligent soundscapes for e.g. computer games.*

*For the last two projects I have been working with motion tracking and sound together. In my group we developed a human filter that made it possible for a person to control and create sound by moving his body in front of cameras.*

*In my opinion Medialogy is a medium technical study where you have the capability of being very creative while using very advanced technology. It is a very good choice of study if you like to work with advanced computer graphics, video, 3D, virtual reality and advanced sound design. It is my opinion that, unlike other computer science studies, you are allowed to have an artistic point of view in the Medialogy projects.*



## Themes and courses on 7th to 10th semester

### 7th Semester: Merging of the senses

Humans interact with their environment or with other humans, using several senses. In e.g. a movie, vision and audio are strongly connected, and the better designed, the more the audience feels a sense of immersion. Understanding how human senses interact and enhance each other is a complicated and important task, which can help us in designing the media of the future.

#### Creative coding

By developing design simple algorithms we can simulate complex natural phenomena. Patterns in nature are found everywhere: think about the shape of trees and leaves, the slope of mountains. In creative coding, you will learn how to reproduce such patterns with efficient computer simulations. You will also learn how to use such algorithms in new media.

Generative algorithms are an emerging field in interactive media. Such algorithms are mostly inspired from natural phenomena, and are used by many artists and designers.

You will learn how to program the state of the art audio visual effects in games and multimedia, and how the movie and advertisement industry use creative programming to enhance their products.

#### Digital culture

Understanding the social and cultural context of new media, by learning theories in the field of media sociology and social psychology, is an important skill than any student of new media needs to develop.

In this course you will learn how digital culture affects everyday life, and you will develop a critical understanding of new media. An understanding of how to analyze new media will help you in developing your own new media product.

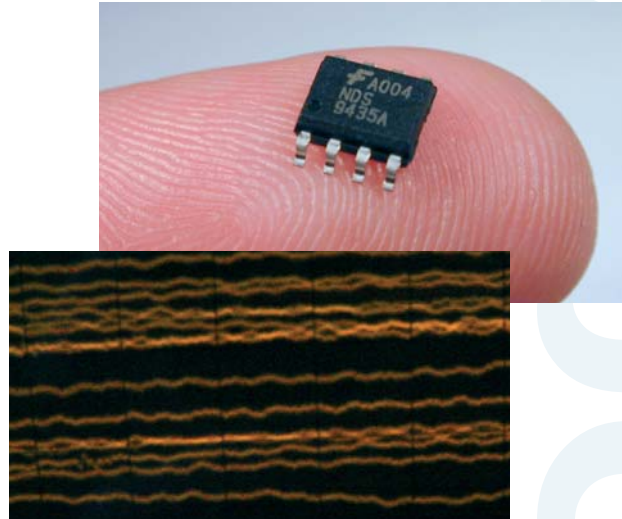
#### Embedded interfaces

Today, computers are abandoning the traditional desktop, and becoming embedded in our everyday lives. Being able to design sensing devices is an important skill, which allows designers to integrate new media in the everyday life.

By learning how to build embedded interfaces, you will be able to design new objects embedded with sensors, which will be used to control the next generation of computer games or can be used in interactive audio-visual installations.

Imagine if you could sense the pressure of your fingers in your coffee mug, and use it to control one of your favourite video games. Or imagine if you knew how to design a device like a GPS system, where you locate people in an environment and control their movements.

All these sensing devices are useful tools to design new immersive environments, where the behaviour of people plays an important role.



#### Cross sensorial processing

Computer processing of visual and auditory information is a complex task, which requires knowledge in signal processing and pattern recognition. Modern multimedia systems include speech recognition devices or motion tracking devices. It is very important for a Medialogy graduate to understand how such systems can be built and integrated in new media products. In this class, you will learn how to analyze human motion and synthesize 3D sound, and design advanced algorithms which allow you to simulate the way humans see and hear.

Speech recognition and motion tracking devices allow you to interact with a computer in a non intrusive way, where no other device than a web camera and a microphone are necessary. However, such devices are not yet fully integrated in our computers, since they still need developments in signal processing algorithms to improve their performance. Remember the last time you used a speech recognition system? It was quite frustrating to say "My name is Bob", and the machine understood "My name is Ron"... by taking this class, you might be the one to ensure that the machines finally recognize your name!

#### Cross modal perception

Humans are by nature multimodal. This means that in the human body different senses (vision, audio, touch...) are connected and interact to allow us to obtain a perception of the surrounding world. In this course, this integration is studied and analyzed. You will learn how the human brain is a complex system not yet well understood.

Think about when you are at a party, where many people are talking around you but you can still concentrate and listen to one person. How can our brain focus on one voice, when there is such a mixture of voices, noises and music? The way our brain processes information in the everyday world is one of the topics of this class.

### 8th semester: Virtual Worlds

Through this semester you will design interactive virtual environments, in which real and virtual objects are merged together. In this environment visitors can interact in responsive ways. You will be able to test your environment in the high end facilities, located at Aalborg University. You will be able to design new media for the CAVE, a cube in which images are projected from six sides, and 8-channels surround sound enhances the sense of immersion and interactivity. No matter what your virtual world will represent, whether a game, an educational environment or an artistic contribution, you will become a skilled virtual reality designer, both from a visual, auditory and tactile point of view. You will also learn how to design stories for virtual worlds, to make audience immersed and interested.

#### Virtual reality instruments

Complex VR technology, such as CAVE and Panorama, are found only in highend laboratories around the world. In Medialogy we are lucky to have such facilities as the state-of-the-art laboratories found at the Aalborg VR lab. In this course you will learn how to use such facilities, and you will be able to try out your projects.

#### Interactive Acoustics

A true immersive environment does not include only visual information but also interactive sound effects and soundscapes, which simulate sonorities and emotions of a specific place. Think about a movie without sound or a game without sound effects: half of the experience would be gone without good sound designers.

This course introduces advanced sound synthesis techniques, which allow you to create novel sound effects for VR, augmented spaces and interactive environments.

#### Motion capture

Capturing human motion and applying it to virtual characters, either in games or movies, is a trend in the new media industry. In this course students acquire comprehension of motion capture algorithms, using the state-of-the-art equipment adopted in the movie and advertising industry.

Imagine if you could record the motion of your favourite dancer, and map it to a virtual animated character. This is possible in the motion capture class.

### Augmented Spaces

Imagine a space in which reality and augmented reality are combined to produce an immersive interactive environment. Virtual reality can be looked at as a new field for artists and designers. By designing new augmented spaces, the real and the virtual world can blur together creating environments beyond reality.

Analysis of how to communicate design ideas to others by means of sketch, drawings, models, prototypes, animations and other tools is the main topic of this course.

#### Virtual Reality Design

The design of virtual reality worlds is based on different theories and principles. In this course you will be introduced to computerbased methods, which combine real and virtual environments, and you will also design photorealistic virtual environments.

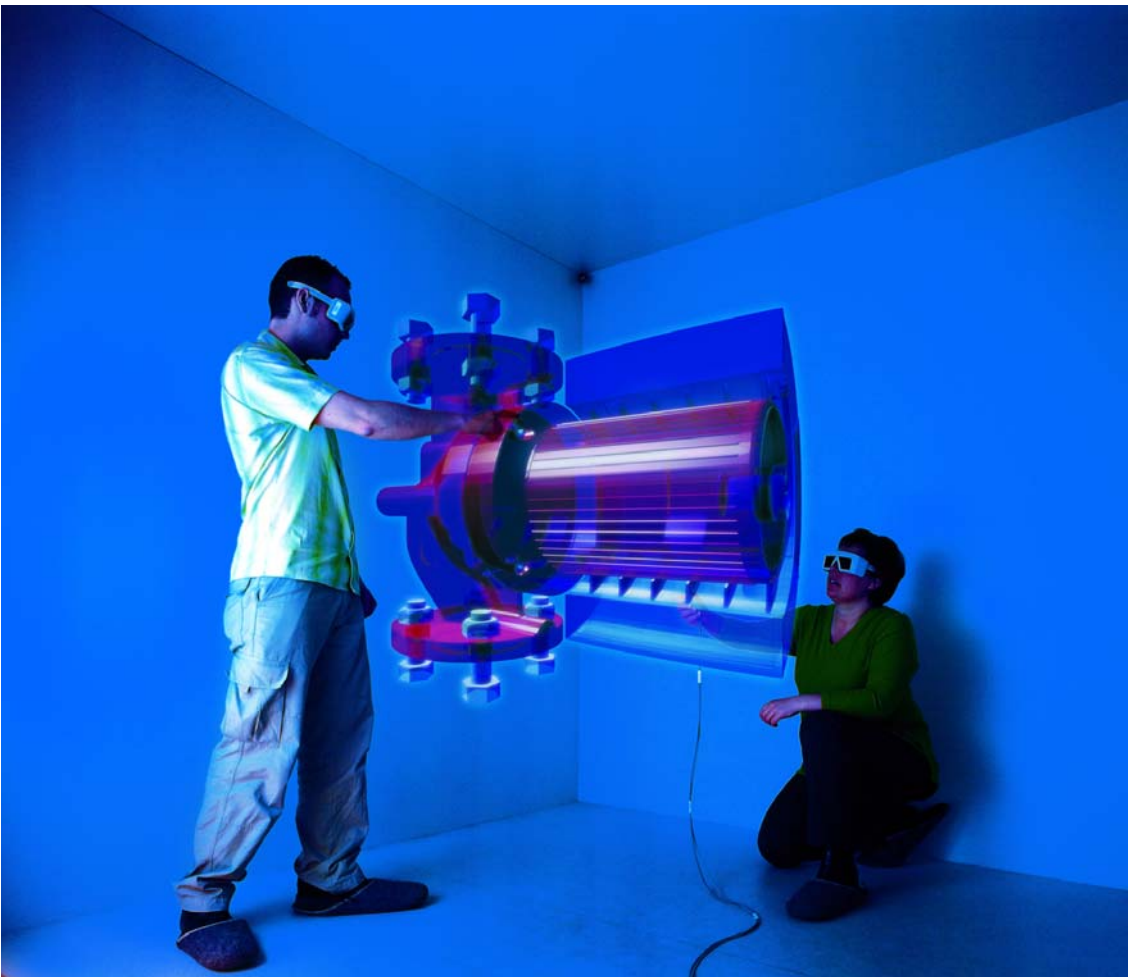
#### Narrative in Virtual Reality Systems

How do you design a story in a virtual world, either for a game or for an animated environment? This course will give you the knowledge needed to plot an immersive and capturing story. Technology is not enough if it is not supported by strong design ideas. When these ideas take the form of a story, different theories need to be learned and applied, in order to make the story interesting.

### 9th and 10th semester

In the last year of your education you will be able to choose among several possibilities. You can either specialize abroad, at one of the Universities collaborating with Medialogy, or study at another University in Denmark. Of course, you can also choose to stay at Aalborg University. Among the expertises of the teachers in Copenhagen, you will find computer graphics and virtual reality, sound design for new media, gesture controlled multimedia environments, computer vision and motion capture, interactive compositions and studies on narrative within new media.





### The CAVE

At Medialogy, you have the opportunity to work in modern laboratories where New Media researchers from all over the world come to develop their ideas, theories and products.

Each semester you will be able to try out different kinds of facilities such as the sensors lab, where you can develop embedded systems, sound labs, where you can interact with surround sound and 3D images, and vision labs, where you can learn how to track your motion with cameras.

Aalborg University has some of Europe's largest Virtual Reality installations with a unique collection of laboratories for visualization. Here you can use facilities such as 3D auditoriums, the Cave, panorama rooms and pc-clusters for your project work. VR is in focus when it comes to designing new spaces for communication and designing new interfaces and you have the possibility to analyse and develop interaction within VR.



## Where to study

### Places to study Medialogy

#### Aalborg University Copenhagen

Aalborg University in Copenhagen is located at the Engineering School of Copenhagen in Ballerup - one of the many different districts of Copenhagen. The city is per definition the centre of education in Denmark with an amazing number of students. People from all over the world - as well as from all parts of Denmark - come to Copenhagen to get their education while enjoying the full benefits of being in a capital city.

Copenhagen is a lively, cosmopolitan place with a forward-thinking attitude - it offers everything that you would expect from a major international city. You can eat out and enjoy cultural shows at any time of the day, you can hang out in the plenty of bars and clubs spread around the city, you can release your energy in one of the many sport centres available or you can simply relax in one of the many libraries and bookstores that the city offers. The city itself is full of different districts, all with their own nuances. You can go to the Nørrebro, Vesterbro or the inner district for trendy shopping or to the beautiful Østerbro for hanging out at the beautiful parks or many cafés.

As Copenhagen is a centre for media and IT-companies the city also offers plenty of opportunities for students looking for study-jobs; an option that many students in Medialogy choose on their later semesters.





### Aalborg University Esbjerg

In Esbjerg you will find another department of Aalborg University. This provides all the professional benefits of being part of a big university and the social benefits of being in a smaller place where everybody knows each other. Presently, about 600 students are studying engineering or it-related educations at Aalborg University Esbjerg.

Esbjerg provides an attractive and varied environment, centred at the many educational institutions in the city. Students from all of the 12 different higher educational institutions meet in the Students House. The city itself offers facilities for sports as well as having a rich music life.

At Skolegade the bars are located next to each other and during the summer there are lots of outdoor music events, both in the city park and at the city square, where Danish pop and rock musicians frequently visit. If you are interested in theatre or classical music, Esbjerg is renowned for its opera with performances of popular operas, musicals and other special performances.

The Student House is full of activities - a centre for student culture in its full width. As a student you are offered a range of arrangements and activities: concerts in all genres, selected talks, gaming tournaments, international nights, art shows and a lot more. The café offers a good time, beverages at prices students can afford and good dining every Wednesday. You can find the latest news about the Student House at [www.husetesbjerg.dk](http://www.husetesbjerg.dk).



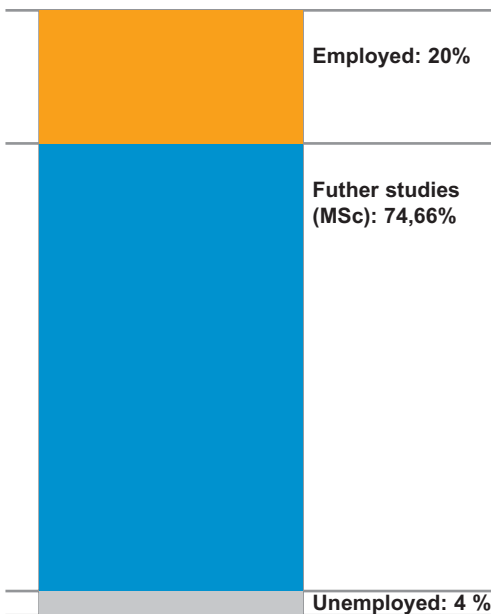
## After graduating

After you graduate from the bachelor you have many options for your future. Many students (approximately 75%) choose to study further to obtain a Master of Science degree, while others choose to leave the university to find a job.

While it is hard to predict the future, an analysis of the bachelor graduates from the period 2002-2004 shows, that Mediology bachelors are appreciated in the industry from broad perspectives. Most graduates have found work in Media and IT-related companies, either as designers, managers or developers.

Unemployed: 4 %  
Futher studies (MSc): 74,66%  
Employed: 20%

*Numbers are based on 79 BSc graduates from Aalborg University Copenhagen 2002-2004. Response rate: 96,94% (75 persons). 1 person is not applicable due to maternity leave.*



### Types of Work

- Development of media content
- Development of interactive TV-formats
- Key-account media manager
- Computer Games Designer
- Teaching for industry
- Graphical Design
- Developer of Blue-Tooth technologies
- Head of development department in cms
- Teaching
- EU-consultant - IT projects
- Developer of multimedia content
- Development of interactive movies (EU-projects)



## Application and practical information

### Applicants with previous “Multimediedesigner” or “Datamatiker” education

New students are enrolled once a year, at the start of September.

When you have decided to apply for Medialogy you have to apply through the application form, which you can find at [www.medialogi.aau.dk](http://www.medialogi.aau.dk).

Deadline is July 1. You should not apply via KOT - as that is the application procedure for students without any previous education.

If you have a previous education as “Multi-mediedesigner” or “Datamatiker” you can get merit for 1 year of studies. Your application will be processed in July, and notification of acceptance is send at the beginning of August.

### Applicants with a danish High School (gymnasium/HF) background

As a danish High School (Gymnasium/HF) graduate with Math level B and English level B, you can apply for admission to the 3 year Medialogy Bachelor program. (Note: the first 2 semesters are not described in this brochure, please consult [www.medialogi.aau.dk](http://www.medialogi.aau.dk)).

If you qualify to apply directly from High School and you wish to apply to Medialogy, go to the website [www.medialogi.aau.dk](http://www.medialogi.aau.dk), and find the application form there and enter one of the 2 codes:

Aalborg University Copenhagen: **25315**  
Aalborg University Esbjerg: **21020**

### Applicants with BSc applying for MSc in Medialogy

Applicants with a relevant bachelor should fill out the application form which can be found at: [www.medialogi.aau.dk](http://www.medialogi.aau.dk)

The MSc in Medialogy is only offered at Aalborg University Copenhagen.

Deadline for sending in the application is July 1.

All Medialogy BSc graduates can be accepted at the Masters Program.

Graduates from other Bachelor educations are also welcome to apply. In such cases applicants are evaluated on an individual basis.

## Study advisors

If you have questions concerning admittance, deadline for application etc. you are always welcome to contact our study advisors.

### **Aalborg University**

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