

Aesthetics vs. Algorithmics in Digital Media Topics in Media Informatics

Frieder Nake



Outline of Seminar. Conditions for Credit. Schedule 28 March / 19 June 2014

This seminar is offered to all Masters-students of the joint international study program in Digital Media at the University of Bremen (towards an M.Sc. degree) and the University of the Arts, Bremen (towards an M.A.).

The seminar is open also to students of the Masters program in Informatik (University of Bremen) as well as those in Integrated Design or Fine Arts (at University of the Arts).

Those students who, in the winter term 2014/15, intend to choose as their project study the option

The generative principle in Digital Media (formerly: Algorithmic Art)

are urged to choose this seminar as their preparatory seminar.

What do I suggest to do in the seminar of summer 2014? I suggest that we explore the tension between the algorithmic foundation and the aesthetic appearance of digital media. More concretely, I invite you to a search trip of three stages. The search aims at a concrete and rich understanding of digital media: Their foundation in algorithms and programs, and their appearance in interactive devices and processes. From special findings we will attempt to draw general conclusions. Those participants who take the seminar as their project preparation, will do this work with the additional goal of drawing up the project outlines.

We will split the weeks of the seminar into three phases. They are dedicated to

- The algorithmic principle in everyday life and in our societies.
- The algorithmic principle in engineering and design, science and art.
- The algorithmic principle in digital media and their theory.

In each of the three phases, you will be required to study one selected aspect, topic, or development. You will be asked to record and summarize your findings in written reports, and present and discuss orally your results. Work methods will be manifold, activities will be creative and varied, and your reports (written and oral) will be exercises in scientific formulation and aesthetic style.

To give an indication of what such topics could be, think, e.g., of:

- everyday life & society: surveillance (e.g., NSA) or laptops in schools, etc.
- engineering, design, science, art: the automatic car or ornamental art, etc.
- digital media, theory: the positions of McLuhan or Kittler, etc.

Right from the beginning, we will make an effort to organize well those three stages. We will learn as we go along, and we will have a final summary meeting of a full day to put everything together.

Summer term 2014 | 03-06-MPP.01 | 4 SWS | 6 ECTS | M.A. & M.Sc. Digital Media, M.Sc. Informatik, others welcome |
Module M-MA-2 Topics in Media Informatics |
Tuesday 14:45 – 18:45 | Linzer Str. 9a (former OAS Building, 3000 | in English | Starts Tuesday, 22 April, 16:30 |

Frieder Nake
nake@informatik.uni-bremen.de | (0421) 218 64485 | Linzer Str. 9a, room 3015 | www.agis.informatik.uni-bremen.de |
@CarlCanary | Office hours Thursday 14 to 16 at Linzer Str. 9a | or Monday upon personal arrangement at HfK

Processing

To accompany these efforts, you will have an opportunity to refresh and advance your programming skills by doing some work in *Processing*. The practice of the algorithmic and generative principles is programming. As an important part of the coming project work (for some of you), but also as a general goal of studying digital media, the seminar will offer a chance to refresh your experience in Processing, and advance it to an even higher level. This will be an extra offer that we will plan for and schedule (in extra meetings) at the beginning of the term.

Preparatory part of the seminar

All those of you who are now in their second semester, will during the winter term of 2014/15 do all (or most) of their studies in the form of a project. The project will be a great chance for intensive learning. It will require a strong effort from you. The projects we offer will, by their very nature, be on specialized topics. Your learning will, therefore, be largely of the *learning-by-doing* style.

Students registered at HfK may choose the so-called individual project work offered there. As an alternative, they may also choose one of the projects offered at the university. Students registered at the university choose one of the two projects offered there.

As already mentioned, I want to win you to join me for the project, „The generative principle in Digital Media“. This is definitely open to students from HfK and the University. I very much want that we have participants from both schools because we jointly offer this program. If we do it well, the project phase of your studies must reflect this shared endeavor. In pursuing interdisciplinary cross-fertilization, I want to gain the interest of students who are more technically, and also of those who are more artistically interested. In other words, I much hope that you are open for the advantages and pleasures of an inhomogeneous group. In your later professional work, it is unlikely that you will be working in homogeneous programming or design groups. Unless you run your own company, you will be working in groups and teams, not as individuals. You must be well prepared, flexible, and inventive as individuals in your own specialty. You must also be experienced and capable to work in interdisciplinary teams. Complexity of digital media require this.

There will be plenty of opportunities in the project I am going to offer in the winter term for your *individual work*. There will also be *teamwork* and group discussion, just because complex developments require this, and you need it. The work for the seminar we are dealing with in the summer of 2014 will already be a mixture of both types of effort.

For those who want to join me for the winter term, my original idea was to arrange for some extra meetings during the summer. However, I have changed this plan into the schedule you see below. Our intention must be that we define (in just enough detail) what your individual and joint project work will be. Students from HfK as well as those from the University will find a good chance here for their *individual projects in the context of team work*.

Conditions for credit

To collect your full six credit points, you must be an active participant throughout the semester. To make this general condition easier for you to keep track of and control, you must satisfy the following conditions:

- you contribute a „search package“ to each of the three stages. A package consists of the following parts:
 - you suggest a stage topic for your search (you may do so also in pairs)
 - you deliver a paper about your findings in scientific style and attractive layout (about 5 pages)
 - you give a short oral presentation highlighting your main results and consequences (15 min.)
- you prepare an oral statement for the final meeting summarizing your account of the tension between Aesthetics and Algorithmics in Digital Media
- if you take the seminar as your project preparation: you submit a conceptual outline of what you want to do in your coming project work, and what you expect from it;
- if you do not take the seminar for project preparation: you submit a paper on a topic yet to be agreed upon.

On 19 June 2014, this has been changed a bit in concern of the third stage. You must now do an „Ignite!“ speech of five minutes length (see extra document. This change in schedule and credit conditions intends to allow for better and earlier concentration on ideas for the coming project work.)

Seminar schedule for the summer term

as of 19 June 2014 (will be adjusted as we go along)

22 April 16:30-18	First meeting, introduction, orientation, organization. <i>Reduced time!</i>
29 April	Second introduction. FN: special contribution Stage 1: Everyday & society. We organize the individual tasks
6 May	Stage 1. Individual work FN: special
13 May	Stage 1. Individual work FN: special
20 May	Stage 1. Presentation of individual search results and summaries
27 May	Stage 2: Engineering, design, science, art. We organize the new individual tasks
29 May	<i>Extra! Workshop on Processing, from 10 to 17</i>
31 May	<i>Extra! Second day of workshop on Processing, from 11 to 18</i>
3 June	Stage 2. Individual work FN: special
10 June	- FN in Minneapolis - Stage 2 Individual work, in a different format
17 June	Stage 2. Presentation of individual search results and summaries
24 June	Stage 3: Digital Media & theory. Ignite! speeches. A discussion of expectations and wishes for the project phase of your studies.
1 July	Stage 3. Working towards project proposals under the roof of "The generative principle in digital media"
8 July	Stage 3. Working towards project proposals under the roof of "The generative principle in digital media"
15 July	Stage 3. Working towards project proposals under the roof of "The generative principle in digital media"
22 July 13-19	Conclusions concerning the seminar; organizational steps for the project work during the winter term; deadline for your preliminary project outline