

# Future-proof education in the field of Media Design and Production

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## Abstract

In 2006 a new bachelor's degree programme was introduced at Linköping University in Sweden. The programme is in the field of Graphic Design and Communication. The programme is multidisciplinary and includes several teaching and research competences from different departments and faculties within the University.

Graphic Design and Communication is a highly interdisciplinary field based on the following areas of research: graphic design, interaction design, information design, mediated communication and visual culture, media production, applied technology, project management and marketing communications.

The graphics sector as well as the media communications sector has changed greatly since the programme started ten years ago. New media platforms have been introduced and traditional media have changed due to new technology. This has resulted in new types of jobs and positions. Obviously, there is a great need to both update and renew the curriculum.

This paper and presentation will describe the process of updating a programme curriculum and introduce the final draft of the programme with new courses as the result of the process. We will discuss how stakeholders can be involved in the process and how their requests have been dealt with during the working process.

The overall aim of the update is to ensure that students who exit the program within in a nearby future, will have knowledge, skills and competences that are required from the creative sector in general and in the field of cross-media design and production in particular. Another aim of the update is to clarify the three main selectable specializations: Creation, Production or Management.

When working with the renewal process we benefited from experiences gained from an international Erasmus-funded project named CIGN (<http://www.cign-education.eu>). The project is conducted in co-operation between Linköping University and Artevelde University College, Ghent, Stuttgart Media University, the University of the West of Scotland and Ryerson University, Toronto.

The process of renewing and updating the curriculum began in autumn 2014 with a workshop to which teaching staff and student representatives were invited. In December 2015, a referral was sent to all involved departments, as well as to the student's organization. The new curriculum will be launched autumn 2017 and will be completely synchronized autumn 2019.

## 1 Background

### 1.1 Governance of the Higher education sector in Sweden

In Sweden, it is the Parliament and the Government that have the overall responsibility for higher education and research. The Parliament makes the decisions and the Government implements the rules, goals and guidelines to in higher education. Everything relating to education and research is governed within the Education Ministry

Universities and colleges have three main tasks: to conduct training and research, to interact with the surrounding society (community) and to ensure that research results will benefit the society [1].

### 1.2 The quality of higher education programmes

The Swedish Higher Education Authority (Universitetskanslersämbetet) has the task of evaluating all higher education. The Government has laid down a qualification descriptor for each qualification awarded by the higher education institutions. Irrespective of the organisation of the studies that have led to the award of a qualification, the quality of the courses and programmes must always be high enough to ensure that the goals laid down in the qualification descriptor are attained [1].

### 1.3 Evaluation

The Swedish Higher Education Authority evaluates all first and second-cycle programmes. Evaluation of third-cycle programmes will start later. Courses and programmes have to be evaluated on the basis of how well they fulfil the requirements laid down in the Higher Education Act and the qualification descriptors in the statutes linked to the Act. In other words, the Swedish Higher Education Authority assesses to what extent the learning outcomes achieved by the students correspond to the intended learning outcomes.

### 1.4 Qualitative targets

The targets in the qualification descriptors are grouped under three headings, or forms of knowledge, that apply for all courses and programmes:

- Knowledge and understanding
- Competence and skills
- Judgement and approach

The courses and programmes that have to be evaluated are those that can lead to the award of a first-cycle or second-cycle qualification. Certain courses and programmes are exempt, for instance those that have been established recently or are in the process of being phased out. The Swedish Higher Education Authority's evaluations are made by panels of external experts which include subject experts, students and representatives of the labour market. The panel has to propose an evaluation of each programme it assesses using a three-level scale:

- Very high quality
- High quality
- Inadequate quality

The evaluation must state clearly how well the students (and therefore the courses and programmes) are considered to have attained the targets appraised. The panel must provide its grounds for each evaluation. The report from the assessment panel provides the basis on which the Swedish Higher Education Authority then decides on the overall evaluation to be awarded for each course or programme. Those that are assessed as having "inadequate quality" will be reviewed within one year. After that the Swedish Higher Education Authority decides whether or not to revoke its entitlement to award a qualification [1].

### 1.5 Four different kinds of input in this process

The evaluation system places great weight on the assessment of the students' independent projects (degree projects). Other input is provided by the institutions' own self-evaluations and students' experiences of the courses and programmes. Questionnaires from former students (alumni) are also used in rounds 1–4. The overall evaluation should be based mainly on the students' independent projects together with the institutions' own self-evaluations.

### 1.6 Quality increment – high evaluation means extra resources

Today resources are allocated to the higher education institutions on the basis of student performance as indicated by the number of higher education credits awarded for first and second-cycle courses and programmes. In June 2010 the Parliament decided that the results of the quality evaluations should also affect allocation of resources at these levels. Higher education institutions whose courses and programmes are considered to attain "very high quality" will receive the incentive of an extra funding increment. This quality-based allocation of funding applies for courses and programmes offered by public-sector higher education institutions as well as Chalmers University of Technology and Jönköping University.

### 1.7 Reference group and Scientific Council

To ensure the continual quality assurance and further development of the quality evaluation system, the Swedish Higher Education Authority has established a reference group consisting of representatives from the higher education sector, students and the labour market. The Swedish Higher Education Authority has also set up a scientific council on evaluation issues to enhance scientific support for the evaluation system

## 2 Setting up new programmes

### 2.1 The process

If an institution of higher education finds that it has the resources concerning teaching and research capacity required, a new Bachelor's programme can be started. The process to start a programme takes normally two years. The expenditure of time is linked to the application procedures to higher education in Sweden. For instance, all public information to prospective students has to be available no later than in the month of December the year before. This means that the syllabus and curriculum has to be set about one year before start of the programme.

The process of writing a new programme concerning the need from the industry and what competences the students need after taking an exam from the new programme are needed takes about a year including writing syllabus and curricula.

### 2.2 Possible limitations

The most common limitation on setting up a new program is the current so-called "takbelopp"(ceiling). All universities and colleges in Sweden has received an allocated quota of student performance on an annual basis as they are paid for. The institution may, of course, examining more, but they will not be paid in addition to the ceiling. Most colleges and universities are trying to be as close to the ceiling as possible

## 3 The current Graphic Design & Communication programme

### 3.1 Starting a new programme

In 2006 a new educational programme in Graphic Design started at Linköping University. It was a Bachelor Degree programme in Graphic Design and Communication (GDC). The programme was interdisciplinary and contained several subjects where the academic resources were found on different faculties and departments within the university.

Graphic Design and Communication is an interdisciplinary subject with its scientific ground in the following areas; graphic design, interaction design, information design, mediated communication and visual culture, media production, applied science, management and market communication.

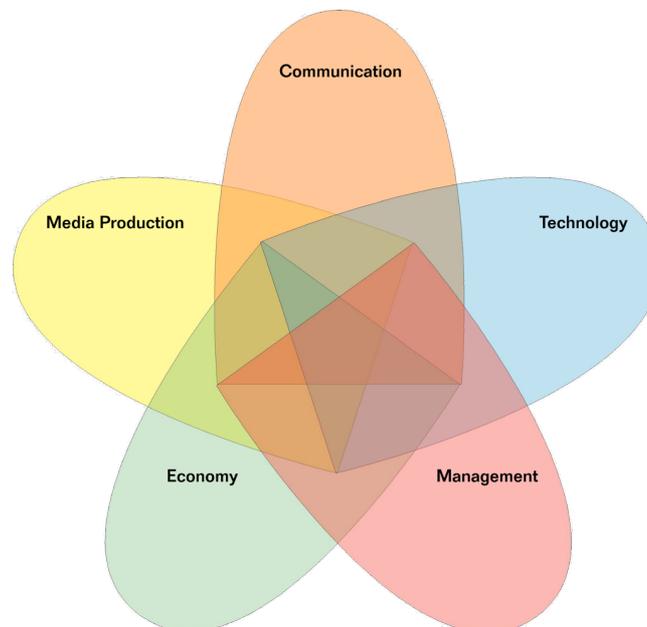


Figure 1: An illustrative overview of the GDC competences

### 3.2 Employability

An online survey made in 2013 with GDC alumni gave insights in the employability of students within the current curricula, what kind of post graduate courses alumni had taken and also their general comments about the

educational programme. Out of the 78 respondents 92 % were employed or self-employed and the most common work areas were Marketing, Graphic Design and Web Design/Development.

## 4 The Process of updating a Curriculum

### 4.1 Reasons for updating

Renewing and updating the curriculum for a whole educational programme is a lengthy and resource intensive process.

There were several reasons why there was a need for this renewal, both external and internal reason. During the almost ten years that have passed since the start of the GDC programme, the graphic industry as well as the communication sector has changed significantly. One example is the the rapid introduction and adaption of new media platforms, such as social networks used for new forms of marketing and market communication. This has also lead to new professions and this evolvment will also reshape the role of old professions and thereby change the competence needs for the employees within these professions in the future [2]. The influence this will have on our future as an educational institution has lead us into feeling a need to make a major overhaul of our educational program, course modules and competences for the future.

### 4.2 External reasons

Intergraf, the European European Federation for Print and Digital Communication, made a study in 2014 called Future Skills in the Graphical Industry [3] where they introduced several future competences within Digital Media relevant for the GDC programme:

- Cross media skills
- Database and digital publishing skills
- Skills to use new technology
- Digital asset management skills
- Entrepreneurial skills
- Engineering skills
- Workflow engineering skills
- Teamwork skills

Interviews with the GDC Advisory Board and several other national companies and organizations gave similar insights about the future skills and challenges within the Swedish Graphic industry and Communication sector [4], [5]. These interviews can be summarized in the following skillset needs, to be competitive on the Swedish market in the future:

- Maintained print media competence
- Increased need for competences in social and mobile communication and technology
- Create, maintain and increase professional networks
- Basic multi-competence paired with excellence in one specific area

Being one of the Swedish educational programmes in Graphic Design at university level with most applicants per seat, there is a strong responsibility to take such challenges into account while planning the curriculum. The aim is to always stay relevant and prepare students for those changes.

### 4.3 Internal reasons

Several internal reason also demanded an overview of the curriculum. Being aware of the trends and changes in the industry had already changed some of the content in the current course modules. Making an over-all overview of the educational programme highlighted these changes and how they have influenced the learning outcomes from the educational programme. In some areas there were overlaps, topics being taught by several courses and teachers, while other areas had gaps. The overview also gave insight how progression of skills were covered by the different course modules, once again highlighting overlaps and gaps.

The current curricula were strongly based on media outputs, the first two semester having a strong focus on print medium, the third semester focusing almost entirely on interactive media. The curriculum layout had a few disadvantages; Some skills were taught several times, one example is typography which now is mainly taught in the second semester where students have little or no skills in interactive media, though typography has a large

impact also on this media. Another example of a disadvantage of current curricula is the difficulty to add, change or combine media output, making visual communication for several different media outputs, so called cross media communication possible within courses and projects before semester 5.

Students and alumni have asked for stronger competence profiles giving them higher excellence in one specific area. In the current curricula this was somewhat diffuse with a few elective courses mostly in fifth and sixth semester.

#### 4.4 Influences from the CIGN Network

When working with the renewal process of GDC we benefited from experiences gained from an international Erasmus-funded project named CIGN (Creative Industries Global Network). The project is conducted in co-operation between Linköping University, Artevelde University College, Ghent, Stuttgart Media University, the University of the West of Scotland and Ryerson University, Toronto. We started by doing a desk research on what had been reported on future skillsets needed in the Creative Industries at EU level as well as at individual country level. We also had a series of meetings with representatives of the creative industries in the various countries. This research gave us a high understanding of future needs of skill-sets in the Creative Industries, especially concerning Cross Media Design and Production. This outcome has been made available to anyone interesting in the subject via 2 reports [6] we have uploaded at the website for the project (<http://www.cign-education.eu>). During this process we identified certain topics that were needed to be better for future students when starting to work in the Creative Industries. This was of great help when we were working with the update of GDC.

#### 4.5 Summary

Keeping in mind that over 90% of the current students gets employed with relevant job titles and responsibilities, the review process should be done carefully. By summarizing the available research and background material the following list of goals for the review emerged:

- Increase the clarity and extent of the elective profiles (Creation, Production, Management)
- Courses should be based on skills, not technical platforms
- Stronger focus on social communication and cross media communication and production

#### 4.6 Process

The process of renewing and updating the curriculum started in autumn 2014, after some years of discussions in the working board for the programme. It started with a workshop to which all teaching staff and student representatives were invited. It continued with several workshops within the planning group (the board) and was a recurring topic on the agenda at all meetings of the Board meetings. In December 2015, a referral was sent to all involved departments, as well as to the student's organization for final feedback before a decision on the new program is taken by the board. The new curriculum is planned to be launched autumn 2017.

### 5. Results

#### 5.1 First three semesters

SEMESTER 1		SEMESTER 2		SEMESTER 3	
Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
Communication 1: Visual and mediated, design history, Norm Criticism 6 ECTS	Communication 2: Verbal, interpersonal, and textual 6 ECTS				Communication 3: Media Convergence and advanced mediated communication 4 ECTS
Design 1: Graphic design, image and sketching 6 ECTS		Design 2: Layout and typography 6 ECTS	Design 3: Interaction and UX 6 ECTS	Design 4: Basic Information Design 6 ECTS	
		Scientific research and evaluation 6 ECTS			Project 1: (Incl. Group dynamics 2 ECTS) 8 ECTS
	Management 1: Intellectual Property 6 ECTS		Management 2: Marketing Communications and Analysis 6 ECTS	Management 3/ Design 4: Brand and value creation 6 ECTS	

Fig 2: Semester 1- 3

Figure 2 shows the three first semesters with only mandatory courses for all students at the programme. This is basic skills all students need regardless to what profile they will choose later. There are three main subject areas, Communication, Design and Management being the foundation for the later elective courses that deepen the skills and competence in three profiles, namely Creation, Management and Production. There is also a project course where the students are supposed to use all skills they have gathered during the three first semesters. The project is with external clients from companies and organizations and this is where the students meet real clients for the first time. In the present version of the programme this project is already in semester 2, which limits the range of media platforms students can work with in the projects, because the current program version does not have courses including Web programming until the third semester.

## 5.2 Semester 4 – 6

SEMESTER 4		SEMESTER 5		SEMESTER 6	
Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
Agil prototyping and responsive interactivity / frontend, 6 ECTS	Project 2: Workplace; reflection and critical perspective 12 ECTS	3D production and 3D animation 6 ECTS	Advanced Media Production (text. SVG animation, digital video, social media) 6 ECTS	Projekt 3: International / collaborative crossmedia project 8 ECTS	Degree project 16hp
Editorial Design 6 ECTS		Packaging and exhibition design 6 ECTS	Interactive Information Design 6 ECTS	Research Methodology 6 ECTS	
Project Methodology 6hp		Project Management 6 ECTS	Market awareness in international crossmedia design and production 6 ECTS		
Communication 4: Rhetoric (both verbal, textual and visual) 6 ECTS		Visual theory 6 ECTS			
		Entrepreneurship and business economics 6 ECTS			

Fig 3: Semester 4-6

Figure 3 shows the courses in semester 4, 5 and 6. These three semesters consist mainly of elective courses where students immerse themselves mainly in the tracks of their choice. First part of semester 4, the students have to choose 2 out of three elective courses and part two of semester 4 is mandatory Internship. In the first part of the semester there is also a mandatory course in Rhetoric. In semester four and five students can choose courses to deepen their knowledge of one of the three offered profiles. Based on our goal of what would be improved in the program update, it was important to give the students opportunity to specialize properly during two semesters.

This specialization will also appear in the student's diploma. Semester five have only mandatory courses, but one of them is a project course of 8 ECTS where students have to choose roles in the project groups that goes along with the track they chosen semester four and five.

## 6. Reflections on the future

Up until now, there has not been a clear path to continue studying at LiU with a bachelor's degree from GDC. However, right now we are planning an International M.Sc. in Design with three specializations, of which one will be in Visual Media Design. This specialization is clearly intended as a possible continuation for students from GDC. It will be an international master and all teaching will be in English. The goal is to attract also students from outside Sweden with a Bachelor's degree in Graphic Design or equivalent. The program will start in autumn 2017.

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## **Author biographies**

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