

Kauno kolegija / University of Applied Sciences Kaunas, Lithuania



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Transformation of the Professions, Qualifications and Study Programmes in the field of Media Industry

- Transformation of the professions and qualifications is related with transition from Print Media to Transmedia – multiple media forms
 - Current skills, education and training in Print (Graphic) Media
 - Drivers of change impacting the industry
 - The influence of changes on future skills
- Future education and training needs:
 - to avoid skills and education mismatches and
 - to address to the future industry needs**
- Recruitment problems –
 - how to enhance recruitment?
 - how to motivate young people to join the print media industry
 - better promote the industry to job seekers by printed and on-line communication

Transformation of the Professions, Qualifications and Study Programmes in the field of Media Industry

- **What are the future industry needs? What are the Drivers of Change?**

- New Technologies

- Digitalization

- New business models

- Globalization

- Climate / environmental challenges

- Aging Population

Millennials: New approaches to working time and to work-life balance!

Lack of skills is an important obstacle for growth!!!

67% of German printers have problems finding skilled labour.

81% of German printers expect a high demand for skilled labour in the next 5 years

(INTERGRAF, CEPI. Graz, June 2019)

21st century skills for EQF 6 and 7 level (current/future):

communication skills;

digital literacy; fluent *Human-Computer Interaction*

social and cultural skills;

creativity;

critical thinking;

problem solving;

team-work...

- Those skills differ from traditional academic skills.

Sustainable Development Goals (SDGs) and perspectives:

SDGs are the blueprint to achieve more sustainable future for everybody.

They address the global challenges related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice.

Recently much attention is paid to the importance of **SDGs** and their relevance for the **learning programmes** of young people. As a result, they often found their way into the skills portfolio and the curriculum.

HEI Bachelor or Master students are expected to reflect on
ecological (planet),
social (people) or
economical (prosperity) situation.

Printing industry situation (Intergraf):

Profile of EU Graphic industry:

- 112 000 companies

- 625 000 employees

- 80 bln turnover

- 90%** of all companies employ less than 10 people

Current staff:

- Ageing

- Specialized skills due to company (low mobility)

- Shifting skills and competencies from traditional craftsmen to technicians

- Low attractiveness

- Polluting industry and „old school“

- Fast development of digital competition

Industry 4.0 and new skills:

Features: automation, robotics, digitalization... Job descriptions are changing.

EQF (European Qualification Framework) levels 1-3 are the most vulnerable

- **What are the future skills (current and new) in prepress / press/ post-press, etc? How will IT future in printing industry?**
- **Importance of the soft skills in future** (communicating, leadership, teamwork...)
- Organizations are looking for employees with new skills and competences according new technologies and business models:
 - Learning ability
 - ICT knowledge
 - Creativity
 - Ability to innovate
 - Adaptability, flexibility, multidisciplinary tasks... (*Graz, June 2019*)

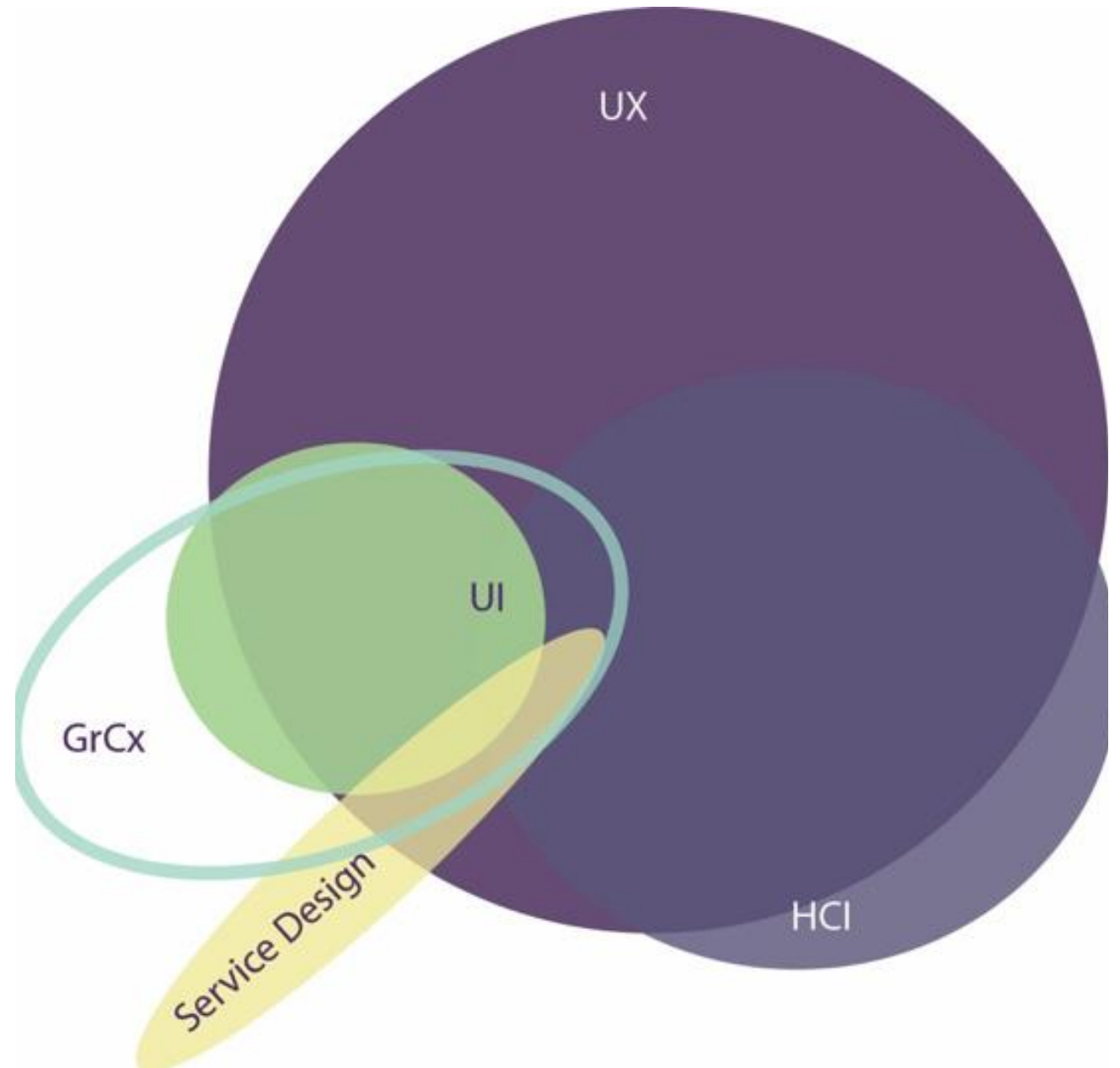
California Polytechnic State University, CA, US: Blending User Experience Design with Graphic Communication Curriculum

Where Graphic Communication (GrC) and user experience/user interface (UX/ UI) design overlap, and how UX design benefits inclusion in GrC curricula?

- „At Cal Poly in San Luis Obispo, CA, our curriculum has **traditional print-based courses** but expands upon the notion that the technology available today to communicate graphically resides not just in print on paper, but in packaging printing and design, printed electronics, graphic design, web and app design, user experience design, service design, alongside management and business concepts.”
- *UI – hard and soft tools for driving operational systems and applied soft*
- *UX – emotions, feelings, attitudes about using product or service (web site, video ...)*
- *Charmaine Farber, Dr. Kenneth Macro Jr. International Circular of Graphic Education and research No. 11, 2018*

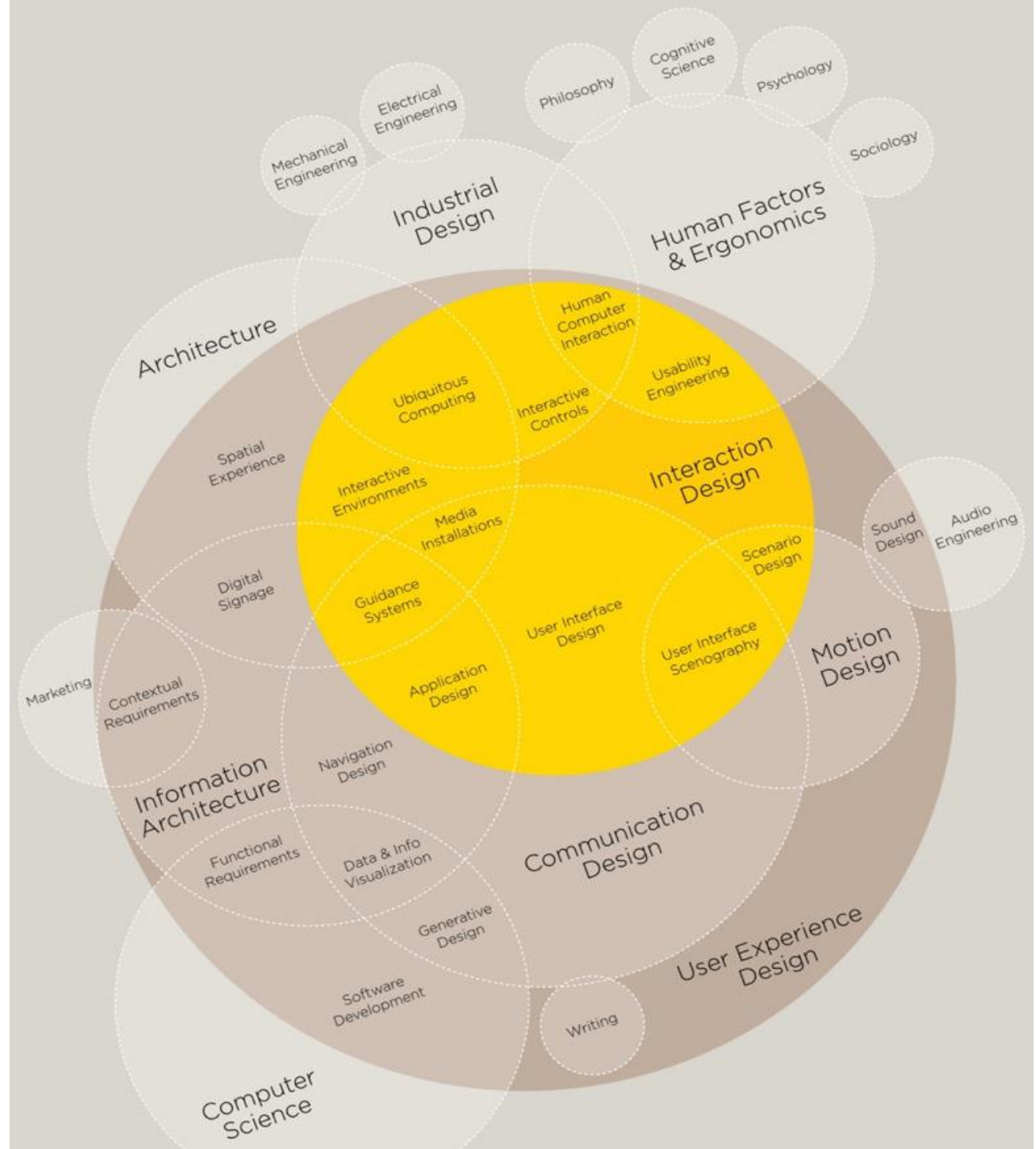
Graphic Communication (GrC) and user experience/user interface (UX/ UI) design overlap

Figure 1: Exploring the relationship between Human Computer Interaction, User Experience Design, User Interface Design and systems versus human centered thinking. The diagram does not symbolize disciplinary proportion, but rather **overlap**. Diagram created by Charmaine Farber 2018.¹



The disciplines of User Experience Design

Figure 2: Depicts the interdisciplinary nature of User Experience Design. Many of disciplines are naturally a part of modern-day Graphic Communication. Diagram from www.envis-precisely.com, 2013



Cal Poly, CA, US: Blending User Experience Design with Graphic Communication Curriculum

“We have four concentrations that build upon the core classes where students gain further specialization in **Design Reproduction** (Graphic Design), **Packaging, Management**, and **UX/UI** (formerly Web and Digital Media).

We offer a **Web Design and Development** course (that emphasizes UX design), **Mobile User Experience**, as well as the first UX course at Cal Poly, **User Experience Methodologies**, and a new course in **Service Design**”.

+ Interdisciplinary electives:

- Human Factors (Industrial and Manufacturing Engineering Department),
- Solving Big World Challenges (Entrepreneurship),
- User Centered Interface Design and Development (Computer Science),
- Introduction to Design Thinking (Engineering).

Charmaine Farber, Dr. Kenneth Macro Jr. International Circular of Graphic Education and research No 11, 2018

Cal Poly, CA, US: Blending User Experience Design with Graphic Communication Curriculum

- Undergraduate concentration distribution of Graphic Communication students at California Polytechnic State University (Cal Poly):

Design Reproduction Technology – 30 % (91 st)

Graphic Communications Management – 20 % (61 st.)

Graphics for packaging – 18 % (54 st.)

Web and Digital Media (UX/UI) - 31 % (96 st.)

Undetermined - 86 st.

- Charmaine Farber, Dr. Kenneth Macro Jr. *International Circular of Graphic Education and research No 11, 201811* https://www.internationalcircle.net/circular/issues/18_02http

Development of the Occupational Standard for the Graphic Technologies, Media and Advertising Sector.

Lithuanian experience

- Standard approved by Sectoral Professional committee of *Printing, Publishing, TV and radio*, Information services, Advertising and Marketing research, June 2019
- Lithuanian Qualifications Framework (LTQF) has been developed on the basis of European Qualifications Framework (EQF)
- The purpose of the National Q F is to harmonize the needs and objectives of business and education system in order to ensure optimal results, while improving training of the workforce and increasing the efficiency of education services.
- The qualifications framework is based on occupational standards at national level, developed for the appropriate sectors of the country's economy.

Development of the Occupational Standard for the Graphic Technologies, Media and Advertising Sector.

Lithuanian experience

- A sectoral occupational standard is a formal agreement between the world of business and the education system, which is vital for employers, educational institutions, learners and employed persons in terms of development and implementation their professional career expectations.
- Professional standards are drawn up through social dialogue with experts from the economic sector and the education system.
- Preparing a list of qualifications and their descriptions, it is important to assess the actual current situation in the economic sector, the expectations and interests of all social partners, the strategic needs of the society and the long-term perspectives.
- *D.Sajek. Innovations in Printing, Publishing and Multimedia technologies. Conference proceedings. Kaunas, Kauno kolegija, 2019.*

Definition and structure of the Graphic Technologies, Media and Advertising sector:

- The graphic technologies, media and advertising sector cover a wide range of activities related to design and publication of printed and modern electronic media (media) and advertising products – design, production, service provision, management and development.
- Using the methodology for the development of the standard and analysis of the main activities of the sector, the types of services provided and the types of output produced, the economic sector has been divided into three **sub-sectors**:
 1. Graphics and publishing;
 2. Media;
 3. Advertising.

The activities of all these subsectors are closely interrelated.

Qualification research in the sectoral enterprises:

- The qualification research covered large, medium and small-sized enterprises in the sector chosen. A number of the employees, the specifics of activity, the nature of the products produced, as well as the technical and technological excellence and the organization of advanced production were taken into account while selecting the companies.
- Two large enterprises in the economic sector were chosen for the qualification research, where specialists of narrower specialization prevail, yet with higher qualifications, alongside with 8 medium and 20 small companies. In total, 30 companies in the sector have been investigated in terms of qualifications, positions and professional activities.
- The descriptions of the occupations have been analysed
- The goals of the professional activity were formulated and the fields of professional activity were defined.

Research on the sectoral specialist training:

- Specialists in graphic technologies, media and advertising are trained in Lithuanian vocational schools, “kolegijos” (colleges) and universities.
- Currently, there are more than 20 training programmes on III-IV level directly related to the qualifications of the sector in **vocational education** : *Electronic Publishing Layout Designer, Multimedia Service Provider, Advertising Organizer, etc.*
- Level VI specialists are trained in Lithuanian **Universities and “kolegijos” (UAS)**
- “Kolegijos” (UAS) offer about 15 professional Bachelor programmes, such as *Graphic Technologies, Advertising Technologies, Photography, Multimedia Technology, Multimedia Design, Graphic Communication Design, Advertising Management...*
- Lithuanian universities also offer about 15 undergraduate study programmes to train VI level specialists – *Publishing and Advertising, Journalism, Lithuanian Philology and Publishing, Film Directing, Photography and Media Art, Packaging and Press Engineering, etc.*
- Level VII specialists are trained in Universities (Master's Degree Programmes) such as *Graphic Communication Engineering, Journalism and Media Industries, Advertising Management, Publishing, Media and Communication, etc.*

- The **graphic technologies and publishing subsector** is broad, covering manufacturing (printing and related processes) and publishing (pre-publishing and publishing processes) activities. Large, medium and small-sized companies belong to this subsector.
- Synthesis of professional activities (such as the activities of a multimedia technologist, media manager) prevail in the **media subsector**. The occupational activities of this subsector are characterized by a wide range of skills i.e. media professionals often need creativity, artistic, technical and social skills. There is also a synthesis of a variety of professional activities that are common to a single qualification in the **advertising subsector** e.g. advertising manufacturer or photographer. Small businesses dominate in this subsector resulting in broader employee engagement in occupational activities with more competencies.
- **Key qualifications** in the graphic technologies, media and advertising sector (Table 1-3) are attributed to three subsectors, yet the attribution of some qualification to one subsector is relative. Qualifications such as photographer, media manager or graphic designer are found in all subsectors.

Table 1. *List of qualifications of the graphic technologies subsector*

Qualification	Level of qualification LTQF / EQF
Graphic technologies and publishing subsector	
Layout editor	IV
Graphics technician	IV
Digital press operator	IV
Printing plate technician	IV
Printing technician	IV
Layout designer	V
Printing equipment mechanic	V
Printing production supervisor	V
Graphic designer	VI
Language editor	VI
Printing production manager	VI
Printing production business manager	VI
Graphic technologist	VII
Graphic process manager	VII

Table 2. *List of qualifications of the media subsector*

Qualification	Level of qualification LTQF / EQF
Media subsector	
Photographer	IV
Multimedia technician	IV
Video and audio operator	IV
Photographer	V
Video and audio system technician	V
Multimedia technologist	VI
Producer	VI
Film director	VI
Media editor	VI
Media manager	VI
Journalist	VI
Media editor	VII

Table 3. *List of qualifications of the advertising subsector*

Qualification	Level of qualification LTQF / EQF
Advertising subsector	
Manufacturer of visual advertising	IV
Advertising technologist	VI
Advertising business manager	VI
Advertising process manager	VII

What shows the analysis of the sector?

- Modern graphic technologies, publishing, media and advertising market – innovative and dynamic creative media industry – **requires qualified professionals** capable of working with digital technologies, demonstrating excellent knowledge of native and foreign languages, information literacy, creativity, knowledge of materials science and other general and special skills.
- The sector is characterized by rapid deployment of up-to-date technologies, **application of innovations, use of new materials, techniques, specialized software** and change. All these factors determine a need for higher level VI-VII qualifications in order to ensure the success of the economic sector.
- **What is the Standard main value?**
- Sectoral occupational standard, as an agreement between the business world and the education system, will benefit both businesses in order to inform education system on specific requirements for professionals as well as executives of training and study programmes who will have a specific milestone in developing, implementing and updating programmes. Undoubtedly, an occupational standard is important for individuals planning to study or develop their careers in the media industry. In order for this agreement to be relevant and comply with actual needs of the social partners, the occupational standard must be updated at least every five years.

Kauno kolegija / University of Applied Sciences

approximately 6,000 students in Social and Humanitarian Sciences,
Medicine, Technologies and Arts

Department of Media Technologies (MT)

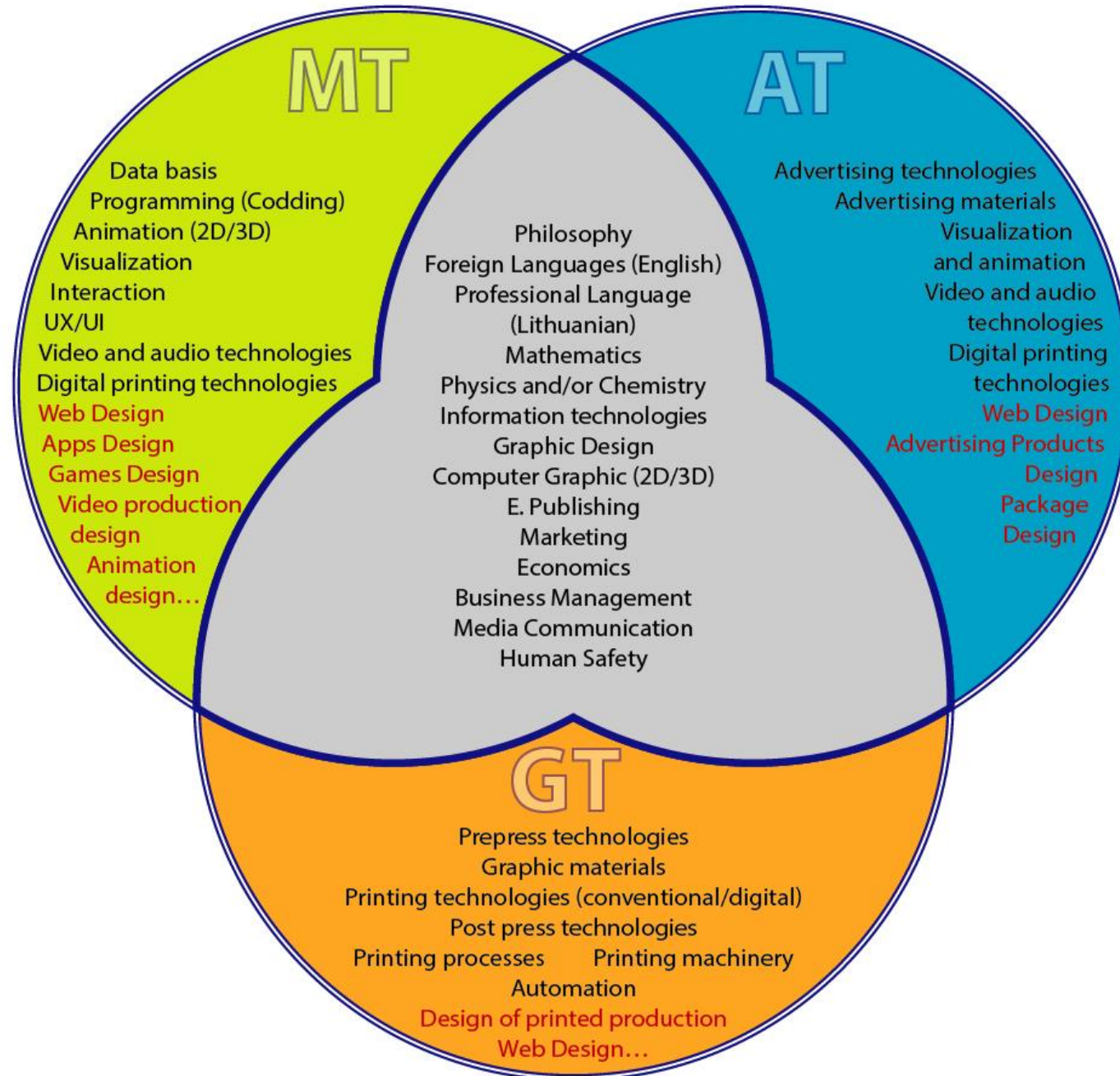
Bachelor Study programmes at MT:

- GT - Graphic technology (~30 students) from 2000

- MT - Multimedia Technology (~300 students) from 2005

- AT - Advertising Technology (~70 students) from 2016

180 ECTS, undergraduates (bachelor) study programmes,
duration: 3 year full-time studies



What can we do about this?

- * The large number of students quit the studies (about 30 %) for different reasons. Full/part-time studies.
- * Recruitment problems regarding GT studies. How and to what extend can we blend it to multimedia? Market needs regarding professions and qualifications?
- * The staff? New challenges and the “old” motivation – does it match together?