Manual Project Startup

Term 2.2

Course Manual study year 2022/2023

Bachelor Creative Media and Game Technologies (CMGT)
School of Creative Technology

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CMGT roles Artist | Designer | Engineer

1 General overview

Module Name	Project Startup
Unit code	L.26028
Year and Term	2.2
CMGT roles	Artist, Designer, and Engineer
Credits	3 ECTS
Module coordinators	Hester van der Ent, Paul Bonsma
Lesson structure	Daily guided work and daily stand up, 2 sprint reviews, 1 final presentation and a dragon's den.
Module summary	You will take on the role of entrepreneurs who want to find funding for an interactive digital product. You will create a prototype of this product, one or more promotional products, a justification of the marketability and a pitch for a Dragon's Den.
Industry relevance	Many students start a company after finishing their study. Understanding all the steps that are involved in getting funding, including a selling pitch, is essential preparation for this.
Type of exam	Group presentation of products (group assessment)
Exam code	T.51754
CMGT Competencies	1. Technical research and analysis 2. Designing, prototyping and realizing 3. Testing and rolling out 4. Investigating and analyzing 5. Conceptualizing 6. Designing 7. Enterprising attitude 8. Enterprising skills 9. Working in a project-based way 10. Communication 11. Learning ability and reflectivity 12. Responsibility
Required prior knowledge and skills / conditions for enrolment	The digital product (proof of concept) should be functional, and feature artwork and user interaction. So, 3D modelling and/or 2D art skills should be present in every team, just as knowledge of the chosen CMGT related tool (e.g. Unity, C++, web technologies, Processing) and knowledge of the module Business Thinking.

2 General Information

2.1 Project Description

In Project Startup, you will take on the role of entrepreneurs who want to start a company built around an interactive digital product. You will create a prototype (or "vertical slice") of this product and analyze the marketability of it for growing a profitable company around the product. At the end of the project, the most successful teams will be invited to deliver a pitch to industry professionals, in a "Dragon's Den" setting.
See: *BBC Dragon's Den* (https://www.bbc.co.uk/programmes/b006vq92) or Shark tank

To get invited for the Dragon's Den a team must have convinced the assessing teachers that it can make their idea "ready to market" within one year, with the help of 1 or 2 extra people and, possibly with the help of one of the dragons. So, the focus lies on realistic, promising idea that is presented in a selling way; more than on a perfectly produced prototype.

Potential investors in your company are interested in three things:

(1) Is this product worth making?
(2) Is this team capable of making the product?
(3) How will this product make money and what is the growth scenario (maturity curve)?

It is your job to convince the "dragons" of this; you really need to think about business related aspects, as you have learned during the module Business Thinking, such as:

- (Future) cost calculation
- Monetization model
- How to market the product
- Market analysis / unique selling points
- SWOT analysis
- Professionality of the team

Important topics to incorporate in your pitch are:

- The introduction of your team explaining the skillset.
- The wants/needs of the user that is fulfilled with the idea.
- The target audience.
- The golden sentence (the why).
- How the product/service will make money.
- The economy of scale (maturity curve).
- The help you want from the dragons.

The module Business Thinking prepared you for Project Startup, so you are expected to apply the knowledge presented to you during that course. To prepare for your pitch and to justify the marketability of your product, you can use the template that is presented on Blackboard.

2.2 Organization

On Monday November 21, there is an online kickoff lecture, introducing the project.

You may suggest your own group of at most seven students. Any group composition (combination of artists, designers and engineers) is allowed, as long as the necessary skills to make a proof of concept are covered. You can put your group suggestions on an online signup sheet, before Monday November 21. On Monday the final groups are published, taking the signup sheet as input. If you don't have a team on November 21, you need to apply to a team yourself. Those who are not accepted by one of the teams at the end of the day, will be combined in a team.

The teams are then assigned to *project classes* by the project leaders. Every project class is guided by two teachers (with complementary skills) who do the grading and sprint reviews.

There will be daily guided work sessions scheduled every week, with one of the guiding teachers present. Here you can get feedback, and technical help related to the teacher's expertise. In addition, you can show your work method (which might help for the grading). Presence for guided work and presentations is mandatory. Contact your teacher in advance if you have a good reason to miss one of these scheduled moments. Absence without a good reason leads to a yellow card (see below). Absence at the final presentation will lead to a redo. Besides that, there are daily standups scheduled that will not be visited by the teachers.

Since this is a 3ects project done in three weeks, the expected time investment is 28 hours per week.

On Friday the sprint reviews are scheduled for both teachers. During the sprint reviews, you will pitch your idea and present your progress, design documents, and detailed plans for next sprint. You need to practice your pitch every week and improve where needed, based on the feedback of the teachers.

The final presentation for the grading is on Thursday December 11. This should include a practice run of the final pitch, but also other aspects such as a product demo, team reflection, etc. On Friday December 12 in the morning you will present your final pitch to the whole class. During the presentation on Friday you will *only deliver your pitch of 5 minutes max,* after which there is a short time for questions. This is the pitch that will be graded, and the same pitch you will prepare for the Dragon's Den. After the final presentation the assessing teachers will decide what teams will be allowed to pitch to the Dragons. Only during the Dragons Den, it will be announced which teams will deliver a pitch.

The Dragons are representatives of companies of the industry who will give their business card to those teams they want to either help with money or time to further develop and market their concept or want to invite them to apply for an internship or side job.

The Dragon's Den will take place on Friday December 12 in the afternoon and it is compulsory to attend it.

The grading will be done based on all the deliverables, the pitch, and what has been shown during the project (for the process-related grading criteria such as teamwork and planning). The grading will be done within 10 working days after the final presentation. The deadline for the deliverables, including final pitch slides *is Thursday before your presentation*. If the promotional video is meant to be part of the final pitch, it must be included in the pitch slides that are uploaded on Thursday.

For the final pitch, you can only use the slides, possibly including a video, as uploaded on Thursday; there is no time to set up live demo's or to connect your own laptop.

2.3 General Motivation and Context

As in every CMGT project, the main learning goal is to apply your previously learned skills in a creative way, in an integrated, multidisciplinary context. You will also be challenged to experiment with related topics, and extend your skills. In this sense, the projects are the practical application of, and motivation for, both previous and upcoming courses (in particular the technical, content related courses).

In addition, the projects allow for developing and assessing general (non-content related) competences, such as those related to working in teams, project planning, design approach, presentation, research, etc.

In terms of general competences, this project mainly focuses on entrepreneurial skills, and allows you to get insight in your future professional field of activity as a CMGT student.

3 Learning Objectives

The student...:

1. applies and extends previously learned technical skills in a creative way, in an integrated, multidisciplinary context.
2. can create a basic business plan.
3. applies tools and techniques for planning team projects.
4. can create a convincing pitch that connects with investors' motives.
5. designs and evaluates a product prototype in an iterative way.

Explanation of these goals, and how they will be graded:

1. *Technical skills* refers to the contents of previous content related/technical courses (for example: Unity, sculpting, web technologies, C++, adaptive sound design). You can choose which of these tools you want to use, depending on what is relevant for your concept. For those tools, a minimum skill level is required (as taught in the corresponding courses), but the emphasis in the project is on creative application of these skills, and extending the knowledge from the courses. In principle the whole team will be graded on all of the above aspects, even though they may only be the responsibility of one role.
2. For this project you are expected to apply the concepts that you learned for the Business Thinking course (Business Model Canvas, Golden Egg, AARRR model, etc.).
3. Project planning (methodology) and team communication will be graded. In addition it is expected that professional tools for software-related team projects are used, such as Trello, Hacknplan, git, on a higher level than during first year projects (e.g. git flow branching model, burndown charts,...).
4. The presentation on Friday will be in the form of a pitch to potential investors. It is essential that this pitch is informative and convincing, and that you show that your team has taken the essential business aspects into account. Make sure to match your pitch to the audience (what are the investors looking for?). This learning goal will be judged based on this pitch. Professional and engaging presentations are expected.
5. The team has to demonstrate that sufficient attention has been paid to all the necessary steps in the design process. In this project, you should empathize with potential customers, and research competitors. Using an iterative approach using prototypes and user tests is important, as always.

4 Examples and Resources

Below are some examples of startups, created by Saxion/CMGT alumni:

- PolarSteps: https://www.polarsteps.com/
  - Main product: an app to track and share travel experiences
- OnlineGastheer: www.onlinegastheer.nl
  - Main product: app and websites for personalized reservation systems for restaurants.
- Magische muur: www.cherit.nl
  - Main product: a mixed reality playground to get children to move more.

4.1 Prototype / vertical slice requirements

As in any CMGT project, creating a convincing interactive, digital prototype of your concept is essential. By prototype, we do not mean a technical prototype: including a user interface and graphical content showing the final style and quality is essential. Therefore the term *vertical slice* is more appropriate: it is not necessary that all of the content (e.g. game levels) is included, but the piece that you show should represent the final vision and quality.

Interactive parts of your product that connect to previous courses should satisfy the minimum technical level required by those courses (e.g. sculpting, Unity, web technology). However, other parts can be left open, as long as the future development of those parts is addressed in the cost calculation.

For example, if your concept is an app or website that requires a complex server backend, the development of this backend is outside the scope of this project, and your prototype may work with demo data that is not stored between sessions. Nevertheless, the more you can add, the more attractive your cost calculation will be! In addition, the concept has to be sufficiently realistic (considering the team), and close to market: concepts that require multiple years and a lot of external help to create are not appropriate for this project.

5 Assessment

5.1 Grading procedure

Every project group will be graded by two teachers with complementary skill sets. Both of these teachers will be present for the assessment (final presentation) on Thursday in week 2.3. The final grade will be determined after the final presentation.

The detailed grading form can be found below. The first four categories of the grading form (technical skills) will be graded based purely on the *end products.* The last four categories of the grading form refer to the *process.* The final grades for these categories will be determined after the last presentation, but they are largely based on what the team showed during earlier sprint reviews and guided work sessions, and uploaded to Blackboard in the first weeks. (For example, if there was no user test session or concept art in the previous weeks, there is no way to make up for this during the final presentation.)

In principle, the whole team gets the same grade, as determined by the grading form. If there is a clear reason for it, the graders may decide to deviate from this, and apply the (relevant categories of the) grading form individually. Possible reasons are:

- The team clearly indicates that certain team members have contributed differently (either positively or negatively). (See green/yellow cards below.)
- There is a clear difference in quality for aspects that are the responsibility of only certain team members (e.g. very different quality in programming vs art work).

Green/yellow cards:
During the project, the team can give *yellow cards* to team members, and communicate this to the grading teachers. Two yellow cards (with good reason, accepted by the teachers) lead to a *red card*, and exclusion from the project. During the final presentation, the team can give *green cards* to team members to indicate that they value their extraordinary contribution to the project. Yellow cards and green cards will be taken into account for the grading process by the grading teachers. (Note that this is advice, not binding.)

Explanation individual grading: If the graders decide to apply individual grading to a student, the grade for technical (product related) categories that are not relevant for this student's work is replaced by the average of the grades for the relevant categories.

Example: A student contributed to *content & art (good)* and *business skills (excellent),* but not to *functionality* or *user interaction.* Then the grades *good* and *excellent* will be substituted for the latter two categories.

5.2 Deliverables

The deliverables are: an interactive product prototype, a product walkthrough video, a written justification, a promotional product and a pitch presentation. The promotional product can be a promotional video, a Facebook advertisement or a guerilla campaign or any other suitable product. You are free to develop whatever promotional product(s) you consider the most suitable to attract investors and early adopting consumers. It should be promising, not necessarily bound to what you can create in the project time frame. In other words, it can show more than your product can provide already.

You will hand in the interactive product prototype, the product walkthrough video, the written justification and the promotional product(s) on Blackboard and you will deliver the pitch presentation to the assessing teachers and your classmates.

Make sure that the combination of all the products reflect, in total, the workload of 84 hours of each team member. So, not only must a decent effort be put into the development of the product prototype, also the promotional product(s) as well as the written justification must be based on actual research that makes the outcome convincing to the assessors.

Main products (mandatory):

- A *prototype* (or vertical slice) of an *interactive digital product*, with a user interface and graphical content showing the final style and quality.
- A product walkthrough video of the digital product. (This is to enable grading of products on unique platforms such as AR apps – the main features should be clearly shown, but the editing quality of the video is not graded.)
- One or more promotional products demonstrating the value of the product.
- A justification of the marketability of the product covering at least the topics that are mentioned in the template on Blackboard.
- A 5 minute pitch presented to the assessing teachers, suitable for the Dragon's Den. (Using slides that possibly include a video.) The final pitch must be uploaded on Blackboard

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Possible intermediate / extra deliverables (include these when relevant, and show these at the appropriate time):

- Concept art, mood board, style sheet
- User test reports and measurements, based on prototypes.
- Design documents (e.g. conceptual level design, lo fi prototype, UI design, user journey map – whatever is relevant)
- Technical design documents (e.g. UML class diagram, flow charts)
- Proof of planning, time investment and methodology (e.g. Trello board, git repository)

5.3 Redo

If you fail the project, a second opportunity to present will be given at the end of the second quarter. If the entire team fails, the same team can present their improvements for the redo. In the case of individual failure (e.g. because of a red card), the grading teachers will indicate whether you can improve your personal contribution to the project, or whether you should join a new team for the redo. In the latter case, you can request the module leaders to assign you to a new team for the redo. You should do this immediately after the end of the project, in week 2.4.

6 Contact persons

Module coordinator:
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Coaches:

Class Pa:
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Max Klostermann (MKL24)
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Class Pe:
Hester van der Ent (HEN02)
Douwe van Twillert (TWI)

7 Rubric

If the preconditions are satisfied, the grade will be the total number of points divided by 10.

Rubric Project Startup				
Preconditions: • All deliverables have been uploaded on Blackboard before the deadline (interactive product prototype, product walkthrough video, written justification, promotional product, and pitch presentation) • The product prototype is interactive, and includes a user interface and self-made graphical content • Design choices are justified with appropriate documents • The final presentation is in the form of a pitch to potential investors • Together, the deliverables reflect the workload of the project (3ecs per team member) If you don't meet the preconditions the assessment will be assessed with a 1.				
	Insufficient	**Sufficient**	**Good**	**Excellent**
Functionality (10%)	**2 pts** missing basic functionality, or serious bugs.	**6 pts** Basic functionality is present, no serious bugs. Technical quality matches basic standards.	**8 pts** S + at least half of the excellent criteria satisfied.	**10 pts** S + (1) advanced features are present, (2) extensive exploration of technical feasibility is done, (3) the implemented features are bug free.
User Interaction (10%)	**2 pts** Interaction unclear, unbalanced UI design.	**6 pts** Basic interaction is clear, sufficient UI and navigation.	**8 pts** S + at least half of the excellent criteria satisfied.	**10 pts** S + (1) Well designed, intuitive UI, (2) professional composition, colors and fonts, (3) UI enables in-depth usability testing.
Content & Art (10%)	**2 pts** Does not satisfy basic technical criteria, or large memory waste / bad file formats used.	**6 pts** Satisfies basic technical criteria, no large memory waste, and correct file formats used.	**8 pts** S + at least half of the excellent criteria satisfied.	**10 pts** S + (1) consistent style, fitting the concept, (2) polished assets used in the prototype, (3) excellent art quality for promotional materials
Business Skills (15%)	**3 pts** Essential elements are missing in the pitch template	**9 pts** The pitch template contains all essential elements and is convincing.	**12 pts** S + at least half of the excellent criteria satisfied.	**15 pts** S + (1) Professional promotional product(s), (2) credible value proposition, (3) budget and planning justified clearly, (4) credible promotional plan.

Planning & team work (10%)	**2 pts** Bad communication within team, unbalanced division of tasks, low effort, conflicts that are not handled well, or bad planning.	**6 pts** Clear, daily team communication. Clear task division. Time investment is clear. Possible conflicts are handled professionally. Professional tools for planning and version control. Clear milestones. Tasks have conditions of satisfaction. Asset list and planning match.	**8 pts** S + at least half of the excellent criteria satisfied.	**10 pts** S + (1) Good use of planning tools, (2) good use of version control tools, (3) team performs in a professional way.
Communication (15%)	**3 pts** Unstructured, unprepared pitch, unclear message, or missing essential information.	**9 pts** Well-prepared, structured pitch with sufficiently informative slides. Main message is clear.	**12 pts** S + at least half of the excellent criteria satisfied.	**15 pts** S + (1) Engaging pitch, (2) Show-don't-tell principle applied, (3) presentation in style of product, (4) convincing argumentation, (5) pitch matches audience, (6) good answers to business related questions.
Design Process – Research & empathize (15%)	**3 pts** Minimal research into the target group or competitors.	**9 pts** Sufficient research is done into competitors. Users and target group are defined. This is clearly reported.	**12 pts** S + at least half of the excellent criteria satisfied.	**15 pts** S + (1) Detailed description of relevant aspects of user, (2) user journey explains goals, steps and expected results, (3) productive brainstorming sessions.
Design Process – Prototype & test (15%)	**3 pts** Unproductive or no user tests, no weekly functioning prototypes, or missing design documents.	**9 pts** At least one valid user test is done. Test setup, data and conclusions are reported. Weekly presentation of prototypes. Appropriate design / style documents are presented.	**12 pts** S + at least half of the excellent criteria satisfied.	**15 pts** S + (1) At least two valid user tests are done, (2) tests are done with the correct target group, (3) questionnaires satisfy guidelines, (4) test data is statistically analyzed, (5) advanced data collection is applied, (6) meaningful A/B testing is applied.