

# Welcome!

Thank You for Joining Us  
&  
We're Glad You are Here!

# Look Mum! No courses!

## Re-imagining a games development education

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International Games Architecture & Design (IGAD)  
Academy for Digital Entertainment  
NHTV Breda University of Applied Sciences

Some context

















<http://www.planetware.com/tourist-attractions-/breda-nl-nb-bre.htm>







# Agenda

Who is NHTV?

The old way

The new approach

The tool **STRAIGHT**JACKET

Demonstration

Outcomes / Q & A



Pictured is our Game-Lab environment encouraging professional game development in an industry like environment.

# Who is NHTV?

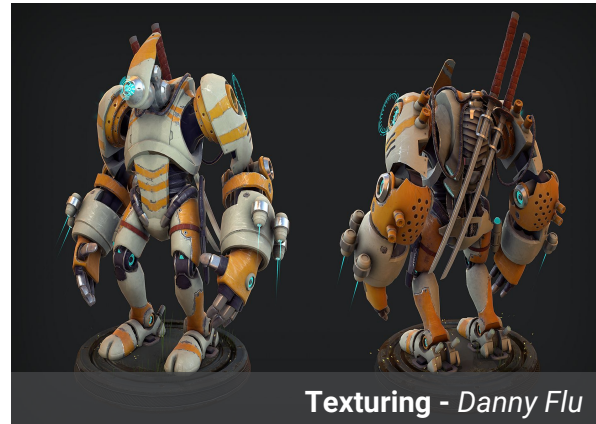
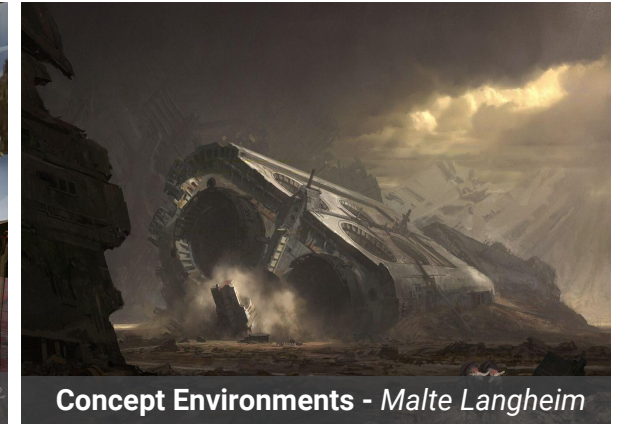
CMGT - International Games  
Architecture and Design (IGAD).

Part of the Academy for Digital  
Entertainment.

Based in Breda, The Netherlands  
(1hr south of Amsterdam).

Students making games with an  
aim to be the best.

Our graduates find great jobs.



Various skillsets of game development are trained whilst always  
working together in multi-disciplined teams to create games.



# Learning game development at NHTV

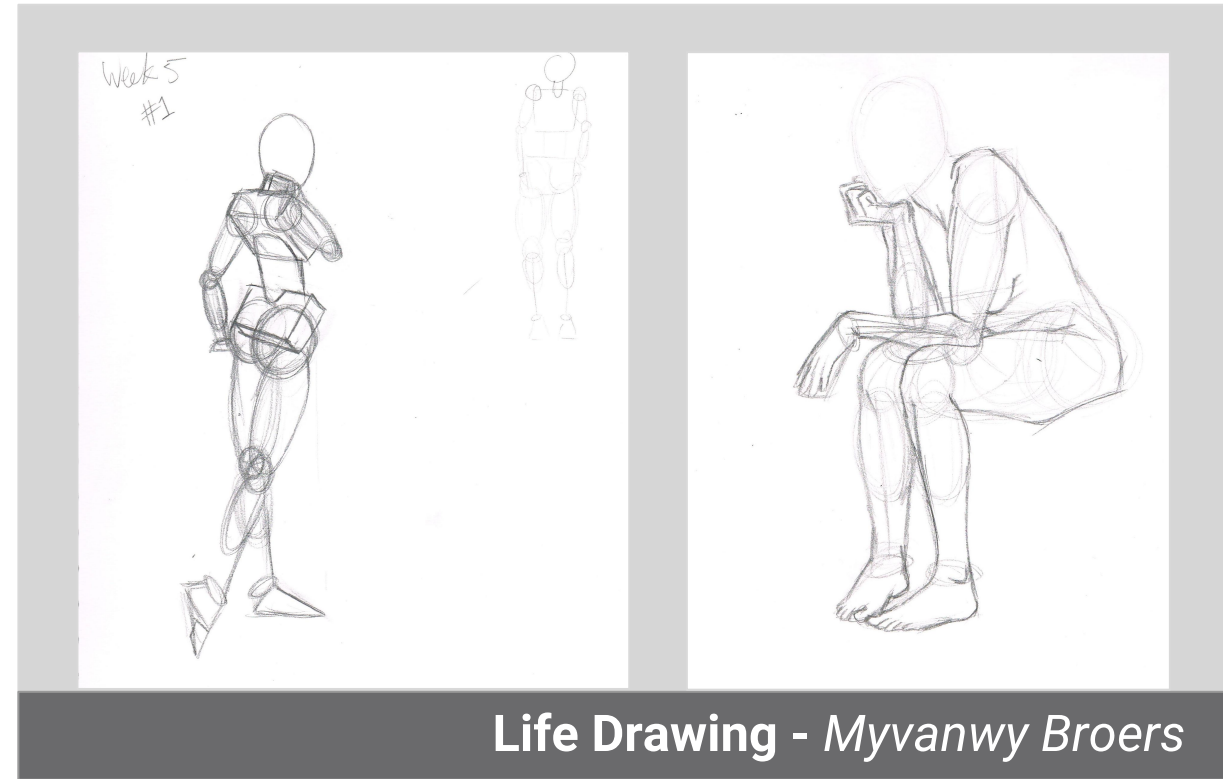
Building on core Art, Design,  
Programming & Production skillsets.

Ex-Game Industry Teaching Team.

Hands-on with Game Development  
Hardware.

Entertainment Gaming Focused.

Part of Sony's PlayStation First Group



Life drawing is just one example of the foundation  
skills taught.



# IGAD old course strengths

Good reputation for quality

IGAD Graduates obtain great game industry jobs

Game-Lab is popular and creates rich portfolios

Graduates find employment with leading games companies

Students are motivated and develop games in and out of NHTV

Students specialise from the first year (in one of 4 areas)

Ex-industry staff passionate about creating the best graduates



Dutch Game Awards, September 2015 - Triskelion



# Output from the study example



<https://youtu.be/QZk7AabcgQs>



## Pine - An action adventure game that adapts to you

Find your way to a new home for the Human species in an intricate game ecology that adapts to your actions, inactions and choices.

**Follow development!**

Created by

Twirlbound

4,091 backers pledged €121,480 to help bring this project to life.



# IGAD course challenges

Student challenges	Staff challenges	Management challenges
<ul style="list-style-type: none"> <li>- Large numbers of courses and competing game-lab projects</li> <li>- 4 pathways that are quite rigid preventing deeper specialisation and creating fail points</li> <li>- Difficult to impossible to change between pathways</li> <li>- Related extra-curricular activities not recognised</li> <li>- <i>Burn-out</i></li> </ul>	<ul style="list-style-type: none"> <li>- Overheads on course creation/changes/running</li> <li>- Grading is time consuming and requires work at home</li> <li>- Retakes require multiple versions of courses</li> <li>- Fast changing industry means difficult to keep up</li> <li>- Teaching non-expert areas</li> <li>- <i>Stressful</i></li> </ul>	<ul style="list-style-type: none"> <li>- Graduation numbers too low - high dropout rate</li> <li>- Lots of study delay</li> <li>- Too many courses (3x a normal programme)</li> <li>- Course changes are difficult to implement</li> <li>- Room scheduling a roadblock</li> <li>- Hard to determine where students are at</li> <li>- <i>Not viable</i></li> </ul>

# Old courses

Individual courses

3-4x what is shown

Then x2 that

Course versions

Retakes

Student sign-ups??

Shared courses

Pressure to share more courses...

Programming - Year 1 (54 Credit - No Compensation)				Programming - Year 2 (-6 Credit Deficit Entry)				
Block A	Block B	Block C	Block D	Block A	Block B	Block C	Block D	
Game Lab 1 (GL1) 4 Credits  Carlos Santos & Dino Dini (Shared IGAD wide)		Game Lab 2 (GL2) 4 Credits  Carlos Santos & Dino Dini (Shared IGAD wide)		Game Lab 3 (GL3) 6 Credits  Jamie Stewart & Brian Beuken (Shared IGAD wide)		Game Lab 4 (GL4) 6 Credits  Jamie Stewart & Brian Beuken (Shared IGAD wide)		
Game Production 3 (GP3) - 03 History of Industry 2 Credits - Robin Potanin (Shared with DP)	Game Production 1 (GP1) - 02 Production Process 2 Credits - Jack Ward Fincham (Shared with DP & IGD)	Game Design Fundamentals (GDF) 2 Credits - Jack Ward-Fincham (Shared with IGD)	Writing Skills 1 (WS1) English 2 Credits - Anita Kraugel (Shared IGAD/IMEM wide)	Hardware 3 (HA3) Multi-Core Programming - Sony PS4 4 Credits Bert Heesakkers	Hardware 2 (HA2) - 03 Network Technology 4 Credits Carlos Santos	Hardware 1 (HA1) System & Processor Technology 4 Credits (New Lecturer) Dongbin Chen	Hardware 4 (HA4) Audio Programming 4 Credits Bert Heesakkers	
Study Planning 1 (SP1)  Goes throughout the Year 2 Credits - Karena Morrison (Shared IGAD wide)	Graphic Tech Fundamentals 1 (GTF1) - 05  Gaming Primitives 2 Credits - Dino Dini (Shared with VA)	Graphic Fundamentals 2 (GTF2)  Game Modelling 2 Credits - Susanne Sexton (Shared with DP and IGD)	Audio Visual 1 (AV1)  Video and Sound Production 2 Credits - Martin Walker (Shared IGAD wide)	Game Technology 1 (GT1) Physics in Games 4 Credits Dino Dini	Game Technology 2 (GT2) - 03 Mobile Development 4 Credits Jamie Stewart  (Shared with IGD - MB2)	Game Technology 3 (GT3) Tools and Techniques 4 Credits Dino Dini	Game Technology 4 (GT4) - 03 AI in Games 4 Credits Dino Dini	
Game Engines 1 (GE1) Rapid Prototyping with Unity 3 Credits Jeremiah van Oosten (Shared Across IGAD but at 2 Credits in Art)	Software Architecture & Design (SAD) - 01 3 Credits Dino Dini	Ludology 3 (LU3) Interaction & Interface Design 3 Credits Alan Jack	Ludology 4 (LU4) Game Balancing and QA 3 Credits Alan Jack (Shared with DP and IGD)		Graphics Programming 1 (GRP1) Rendering Elementals 4 Credits Jacco Bikker	Graphics Programming 2 (GRP2) - 03 3D Engine Architecture 4 Credits Jacco Bikker	Graphics Programming 3 (GRP3) Graphics Hardware APIs 4 Credits Jeremiah van Oosten	Graphics Programming 4 (GRP4) - 03 Shader Programming 4 Credits Jeremiah van Oosten
Programming 1 (PR1) Introduction to C++ 3 Credits Brian Beuken	Programming 2 (PR2) - 02 Data-structures 3 Credits Brian Beuken	Programming 3 (PR3) Optimisation 3 Credits Jacco Bikker	Programming 4 (PR4) - 02 Advanced Data-structures & Algorithms 3 Credits Jacco Bikker					
Mathematics 1 (MA1) Vectors 3 Credits Dino Dini  (Shared with IGD and called MB)	Mathematics 2 (MA2) - 01 Matrices 3 Credits Robbie Grigg	Mathematics 3 (MA3) Calculus 3 Credits Dino Dini	Mathematics 4 (MA4) - 01 Physics 3 Credits Jamie Stewart					
Programming - Year 3 (-8 Credit Deficit Entry)				Programming - Year 4 (-10 Credit Deficit Entry)				
Block A	Block B	Block C	Block D	Block A	Block B	Block C	Block D	
Game Lab 5 (GL5) 6 Credits Bert Heesakkers  (Shared IGAD wide)		Specialisation Project (SP) 21 Credits  (Shared IGAD wide)		Work Placement (WPM) 30 Credits  (Shared IGAD wide)		Graduation Project (GRP) 30 Credits  (0 Credit Deficit on Submission)  (Shared IGAD wide)		
Entrepreneurship (ENT1) 2 Credits  Gerben Beijneveld (Shared IGAD wide)	Writing Skills 2 (WS2) - 01 Research 2 Credits  Bert Heesakkers (for PR & IGD) (Shared IGAD wide)							
Advanced Game Tech 3 (AGT3) Special Effects & Animation 5 Credits Bert Heesakkers	Advanced Game Tech 4 (AGT4) - 02 Procedural Design 5 Credits Brian Beuken							
Advanced Game Tech 5 (AGT5) Console Programming - PS4 5 Credits Brian Beuken	Advanced Game Tech 6 (AGT6) - 04 GPU Programming 5 Credits Jacco Bikker	Industry Preparation (IP) 2 Credits Coline Pannier (Sharded IGAD wide)						
		Advanced Game Tech 7 (AGT7) Experimental Games 5 Credits Carlos Santos & Andy Sandham						
		Study Coaching 2 (SC2) 2 Credits Coline Pannier (Sharded IGAD wide)						
		(Shared with IGD and DP)						



# Critically - Industry feedback

Industry critique:

*Students could be more specialised*

*Not all career paths are supported*

*Portfolios are sometimes found to look quite similar*

*They need to finish projects and publish at least one*

*Students should obtain more experience with production assisting tools*





And now:

New Government sector - Creative Media and  
Game Technology

All new competencies...



Enter IGAD v2.0

2015 - Change all years to the new system...

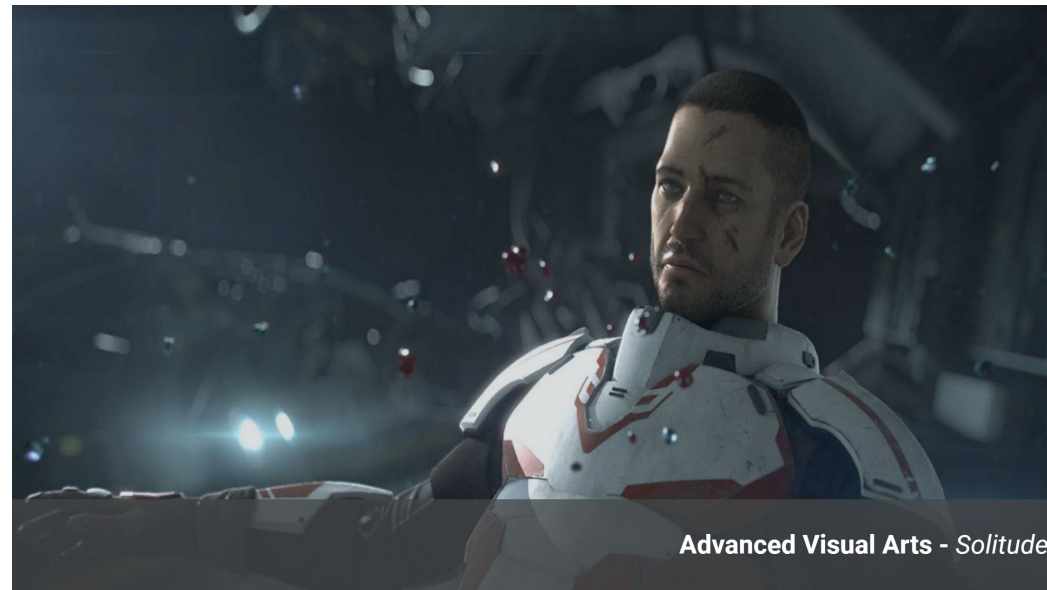


# Philosophy

Support each student's personalised learning path

Give a student guidance and facilitate their work towards a perfect career

Give a student guidance & facilitate their academic progress and future options



Advanced Visual Arts - Solitude

# IGAD v2.0 – Vision for Students

To consolidate us amongst the world's best game educations:

- ❑ **Pioneer a Role-Based Learning approach and associated system**
- ❑ Adopt latest games industry practice for pipeline, tools and management
- ❑ Allow students to explore and develop to their best abilities
- ❑ Keep students project focused (no retakes, competing courses, etc..)
- ❑ Allow student game development in & outside NHTV to progress study
- ❑ Bring your own device (BYOD) focused – traditionally IGAD
- ❑ Specialist hardware, software and dev-kit purchases for Makerspaces



# IGAD v2.0 – Vision for Staff

Making it a great place to work:

- ❑ Refocus work on making games rather than making courses
- ❑ Refocus work ethic to be team-based, supportive & collaborative
- ❑ Reduce administration whilst increasing the quality of assessment
- ❑ Mature education model to encourage expert groups
- ❑ Allow staff to focus on their strengths where and when needed

# IGAD v2.0 plan

Student plan	Staff plan	Management plan
<ul style="list-style-type: none"><li>- No courses</li><li>- Everything project based with one project at a time</li><li>- Role defined by the student</li><li>- Give them control of their competency profile</li><li>- Make it easier to find resources, staff and guidance</li><li>- Encourage participation</li></ul>	<ul style="list-style-type: none"><li>- Teach in your expert area</li><li>- Making the grading process manageable</li><li>- Make student development visible across projects and years</li><li>- Leverage all e-learning resources</li><li>- Be responsive to student needs</li></ul>	<ul style="list-style-type: none"><li>- Keep students with their cohort</li><li>- Easily schedule lectures or workshops</li><li>- Make student progress clear and concise</li><li>- Address dropout rate</li><li>- Address study delay</li></ul>



But... a PBL system has a recommended  
**maximum** staff-student ratio of 20 to 1



# Role-Based Learning (RBL)

Pioneering a new teaching methodology – Role-Based Learning (RBL)

Leveraging the best of Project Based Learning (PBL)

Addressing the weaknesses of PBL – individual performance

**BUT** this is even more intensive than PBL because we need to individually assess and manage....



# IGAD v2.0 - The challenge

Supporting personalised learning is logistically challenging for both Students and Staff within the confines of University management and government requirements

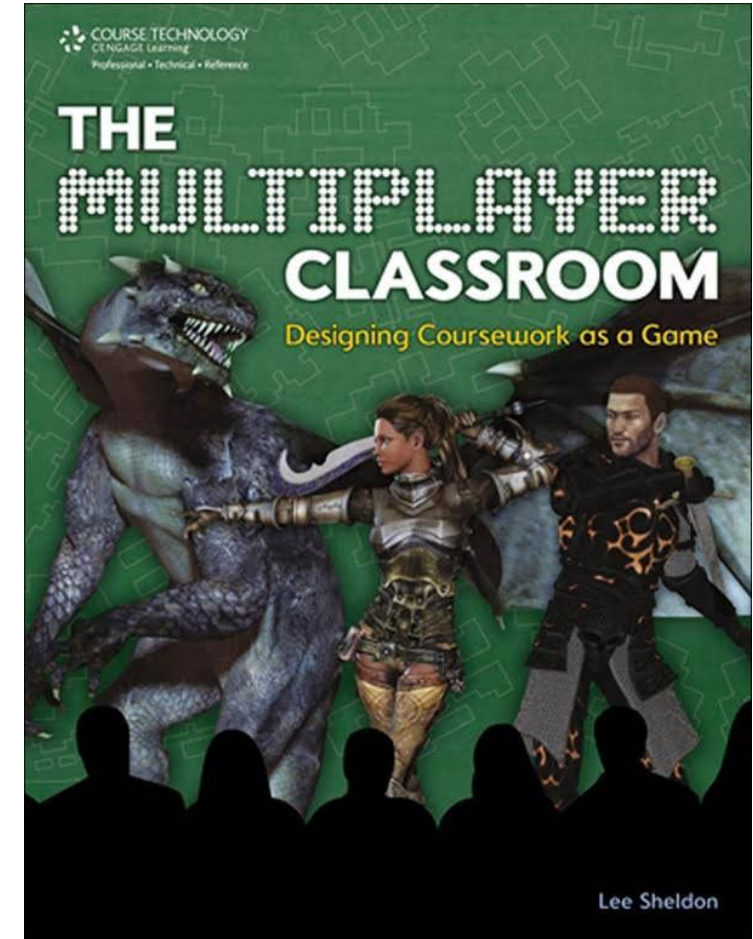
Study support system that captures feedback from a granular artefact creation level through to a high-level learning goals and development

Embrace the experiential learning of game development

# Inspiration - RPGs?

The Multiplayer Classroom

By Lee Sheldon





# Inspiration - The old learning object model

“The permissive approach to using **learning objects** focuses on making the reuse and localization of all resources, regardless of their structure, as effective and efficient as possible” - from *The Learning Objects Literature* (<http://www.opencontent.org/docs/wiley-lo-review-final.pdf>)

*The Future of Learning Objects* - by H. Wayne Hodgins (<https://goo.gl/YHMjyO>), the father of learning objects

From work in the 90s I saw this appear in and be used in Australia

Although I have seen this come (and go) in a lot of environments

# Introducing project **STRAIGHTJACKET**

This is a word-play on **Straitjacket**

**STRAIGHTJACKET** is to facilitate an effective RBL experience

We need to be able to evaluate individual learning paths



Producer, Director, Engine Programmer, Artist, Modeller, Audio Engineer, Designer, Gameplay Programmer, etc..



# Student led designs



GL2  
Student Score 95  
Critic Score 85

# THE WAY THEY WALK

Modern puzzle game for the Tablet and Phone

By: Get in the Van



OBJECTIVE DETAILS SUMMARY CRITIC REVIEWS USER REVIEWS DETAILS TRAILERS



Watch Trailer

95

CRITIC SCORE  
BASED ON 58 CRITIC

95

USER SCORE  
BASED ON 20 USERS

YOUR SCORE ■■■■■■■■■■ 0

GameLab: 2  
Genre: Puzzle  
Developer: Get in the Van  
For: Tablet  
Also on: PC, PS4, PS3  
Rewards:



Summary: In Destiny (from the creators of Halo) you are a Guardian of the last city on Earth. You are able to wield incredible power. Explore the ancient ruins of our solar system, from the vast dunes of Mars to the lush jungles of Venus. Defeat Earth's enemies. Reclaim all that we have lost. Become... [Expand](#)

## TEAM MEMBERS

### TEAM LEAD

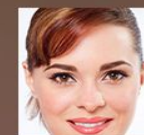


Oliver Engels  
120010

Lvl 7



### VISUAL ARTISTS



Cristie Balis  
120035

Lvl 8



Jaams Friezo  
120135

Lvl 7



Oliver Engels

USER REVIEWS

WRITE REVIEW





NEWS

First GameLab Games Online

Check them out now in the GameLab Lab

Sep 18 at 9:24:31 PM

New Gallery Images uploaded

Check out the new work in the Gallery

Sep 15 at 15:44:57 PM

Phyre Support now in the forums

The developers of Phyre have now joined our forum

Sep 13 at 12:20:20 PM

375 registered students in IGAD

Find out more about the huge amount of student registrations

Sep 13 at 12:20:20 PM

More News

Find out more news about NHTV

NHTV Breda

unity

759

TWEETS

324

FOLLOWING

324

FOLLOWING

Singolo is a free PSD template of a flat, single page website created by @PdChat #freebie #psd http://bit.ly/19XMBLj

2 hours ago

Saturday Career Workshops are back at ADC! See what high school students created this week: http://bit.ly/Xx1EsL

6 hours ago

Like

Later

Share

Join our Newsletter

Sign up for our personalized monthly newsletter

Enter email address

SIGN UP

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# Oliver Engels

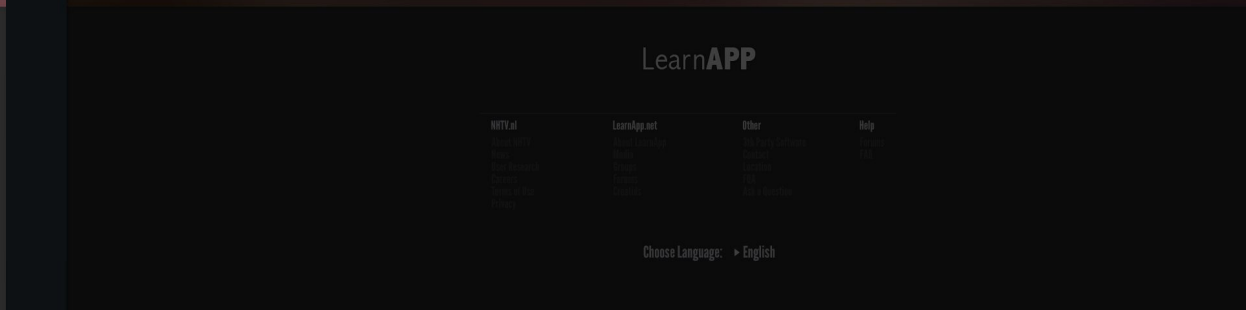
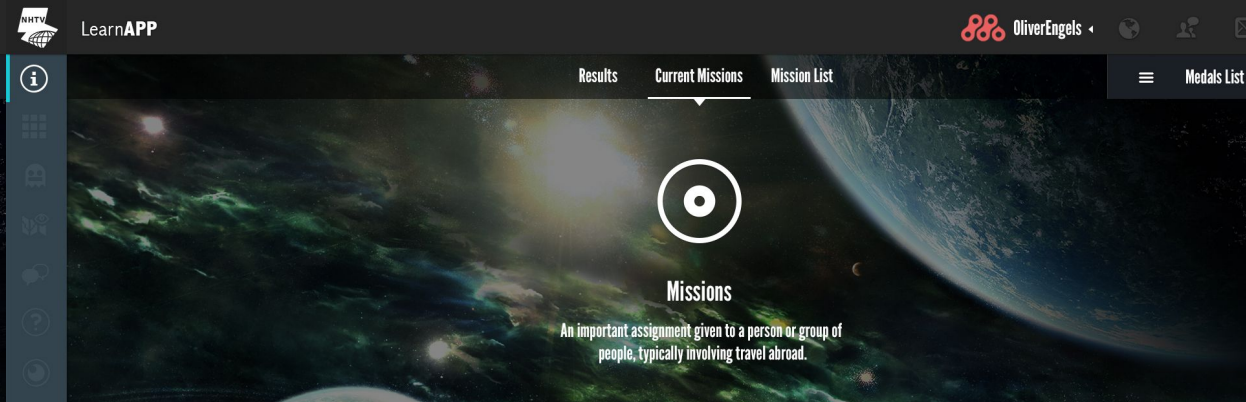
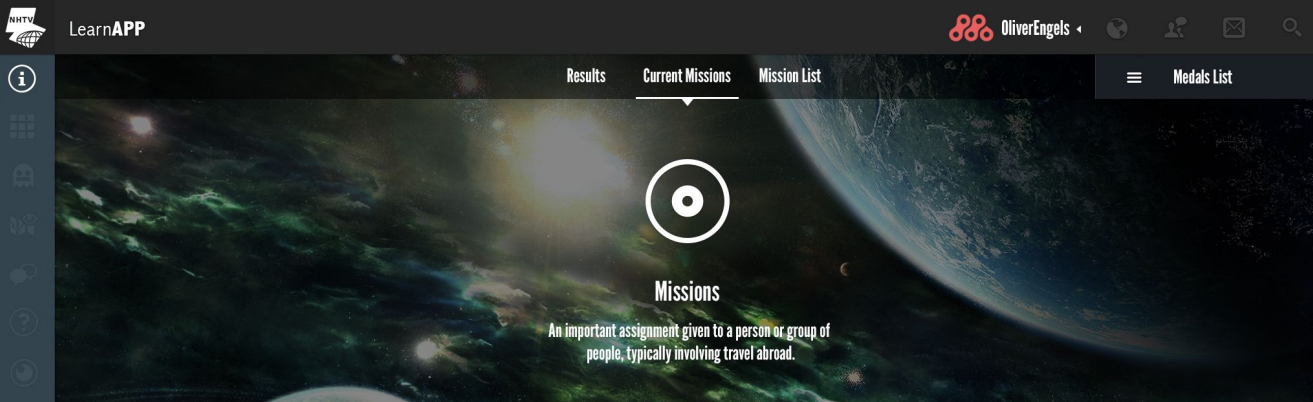
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Oliver Engels

PROFILE

▼ BOOKMARKED ROLES

Social Designer
Scenario Designer
World Designer
Flow Designer

▼ BOOKMARKED OBJECTIVES

Questionnaire
Case-study
Apple App Store publish
Header Files
Iteration Constructs
Casting
Utomik
2D Collision



OLIVER ENGELS  
120010

PROGRESS



AVERAGE LEVEL  
2.3

AVERAGE GRADE  
8.9

Matthijs van de Laar



## AUTOMATIC TESTING - QA ★

The student is able to perform Automated Testing.

### ▼ RELATED ROLES

[Lighting artist](#)
[Procedural Artist](#)
[Props Artist](#)
[Effects Artist](#)
[Mocap / Live Direction](#)
[Tools Designer](#)
[Producer](#)
[Scriptwriter](#)

### ▼ REQUIREMENTS



**PASS:** Evidence proof of technical knowledge through application/research and analysis.



**DISTINCTION:** Evidence proof of technical knowledge through application/research and analysis.

### ▼ RESOURCES



<http://www.stack.nl/~dimitri/doxygen/>



A Theory of Fun, Raph Koster (2008)


[+ ADD TO PLAYLIST](#)
[REQUEST WORKSHOP](#)

### COMPETENCY 3

Technological-Implementation & Testing (Graduation Level 3)

### EXPERT LECTURERS



### COMMENTS

O. ENGELS [120010]

13-07-2015

Great objective.

M. VAN DE LAAR [120044]

08-07-2015

Learned a lot from this one - great industry preparation!

E. VERPLOEGEN [123123]

06-04-2015

I love to get coffee for those who work for me, especially when I was assuming this role. Great role!

Write a comment...

[SUBMIT](#)

Matthijs van de Laar

# PLAYLIST FEEDBACK

(SUBMITTED 03-06-2016)

Give feedback on this student's submitted playlist here. Please give written feedback, a stamp and a level per asset. Please give an overall grade for the playlist on the right.

## ASSET 1

OBJECTIVE

VALVE'S STEAM

HELIX URL

HTTPS://DOCS.GOOGLE.COM/SPR

REQUIREMENTS

Select the appropriate category regarding this asset.

✗

FAIL: Insufficient.

✓

PASS: Eviden through app

★

DISTINCTION knowledge t and analysis

FEEDBACK

LEVEL 1   LEVEL 2   LEVEL 3

LEVEL 1

CONTEXT

INDEPENDENCE

Simple, structured, fits directly to known methods according to established stan-  
dards.

Known, simple.

Directive counselling.

PLAYLIST GRADE

8,7

OLIVER ENGELS  
120010

### STUDENT PROGRESS



SAVE DRAFT

SUBMIT REVIEW

## ASSET 2

OBJECTIVE

QUALITY ASSURANCE

HELIX URL

HTTPS://DOCS.GOOGLE.COM/SPR

REQUIREMENTS

Select the appropriate category regarding this asset.

FEEDBACK

LEVEL 1   LEVEL 2   LEVEL 3

Matthijs van de Laar

# SUBMITTED PLAYLIST

(SUBMITTED 03-06-2016)

This page displays the feedback by supervisors on your submitted attempts.

PANEL REVIEW BY: OOS, DUG, HAG

PLAYLIST GRADE

8,7

## ▼ ASSET 1

OBJECTIVE

VALVE'S STEAM

HELIX URL

HTTPS://DOCS.GOOGLE.COM/SPREADS...

REQUIREMENTS

✓ PASS: Evidence proof of technical knowledge through application/ research and analysis.

 DISTINCTION: Evidence proof of technical knowledge through application/research and analysis.

SUPERVISOR FEEDBACK

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed nec neque est. Nam condimentum molestie orci at lacinia. Nunc tincidunt nulla orci, non hendrerit est pulvinar at. Nulla bibendum dapibus nulla, ut bibendum elit varius ac.

Duis porta interdum justo, eu laoreet neque sollicitudin eget. Ut ac justo nisl. Ut iaculis molestie sapien a cursus.

RESULT



LEVEL 2

## ▼ ASSET 2

OBJECTIVE

QUALITY ASSURANCE

HELIX URL

HTTPS://DOCS.GOOGLE.COM/SPREADS...

REQUIREMENTS

✓ PASS: Evidence proof of technical knowledge through application/ research and analysis.


 DISTINCTION: Evidence proof of technical knowledge through application/research and analysis.

SUPERVISOR FEEDBACK

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed nec neque est. Nam condimentum molestie orci at lacinia. Nunc tincidunt nulla orci, non hendrerit est pulvinar at. Nulla bibendum dapibus nulla, ut bibendum elit varius ac.

Duis porta interdum justo, eu laoreet neque sollicitudin eget. Ut ac justo nisl. Ut iaculis molestie sapien a cursus.

RESULT



LEVEL 2

Matthijs van de Laar





## WORKSHOPS

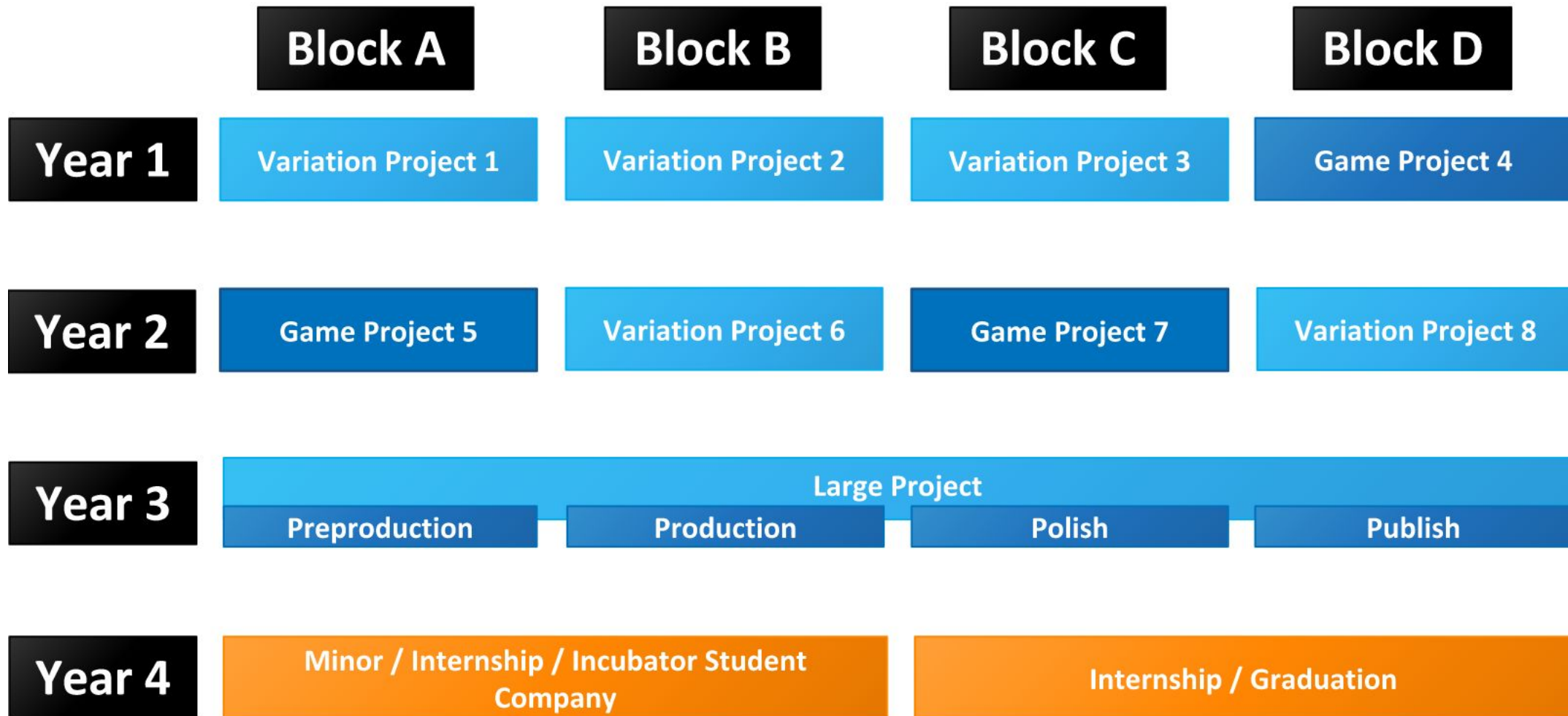
PERIOD: WEEK 30, WEDNESDAY JULY 22ND, 2015 ▼

ROOM	09:00 - 11:00	11:00 - 13:00	13:00 - 15:00	15:00 - 17:00
N1.222	<b>KICK-OFF EVENT</b> FRN, WLD, AJA, RED, RBG 2 / 15 OPTED-IN	<b>PROGRAMMING 101</b> BEU, RBG 1 / 15 OPTED-IN	EMPTY	<b>THAT ONE WORKSHOP</b> GOD 15 / 15 OPTED-IN
N1.235	EMPTY	EMPTY	EMPTY	<b>ART 102</b> BWO, XOC, OFD, PSH 7 / 15 OPTED-IN
N1.401	EMPTY	<b>ASDFASDF</b> DR. X 4 / 15 OPTED-IN	EMPTY	EMPTY
N1.405	EMPTY	EMPTY	<b>TEXTURING 1</b> SAM 5.5 OPTED-IN	EMPTY

Matthijs van de Laar

# Program logistics

# New program structure





# Student block

	Students	Staff
Week 1	Project Lab	Formative Feedback
Week 2		Study Coaching (Scrum Masters)
Week 3		
Week 4		Team Review
Week 5		Study Coaching (Scrum Masters)
Week 6		
Week 7		Team Review
Week 8	Final Week	Game Play-Day
Week 9	Extension Lab	Panel Review
Week 10		Game Release
		Extension Panel

# A Student week

	Mon	Tue	Wed	Thu	Fri	
Year 1	Project Lab		Workshops, Lectures and Guest Lectures	Project Work	Study Day	
Year 2	Project Work	Study Day		Project Lab		
Year 3	Project Lab	Project Lab		Project Work	Study Day	< Year 3 – Group 1
	Project Work	Study Day		Project Lab	Project Lab	< Year 3 – Group 2
Year 4	Minor					
	Internship					
	Graduation					
Master			Masters			

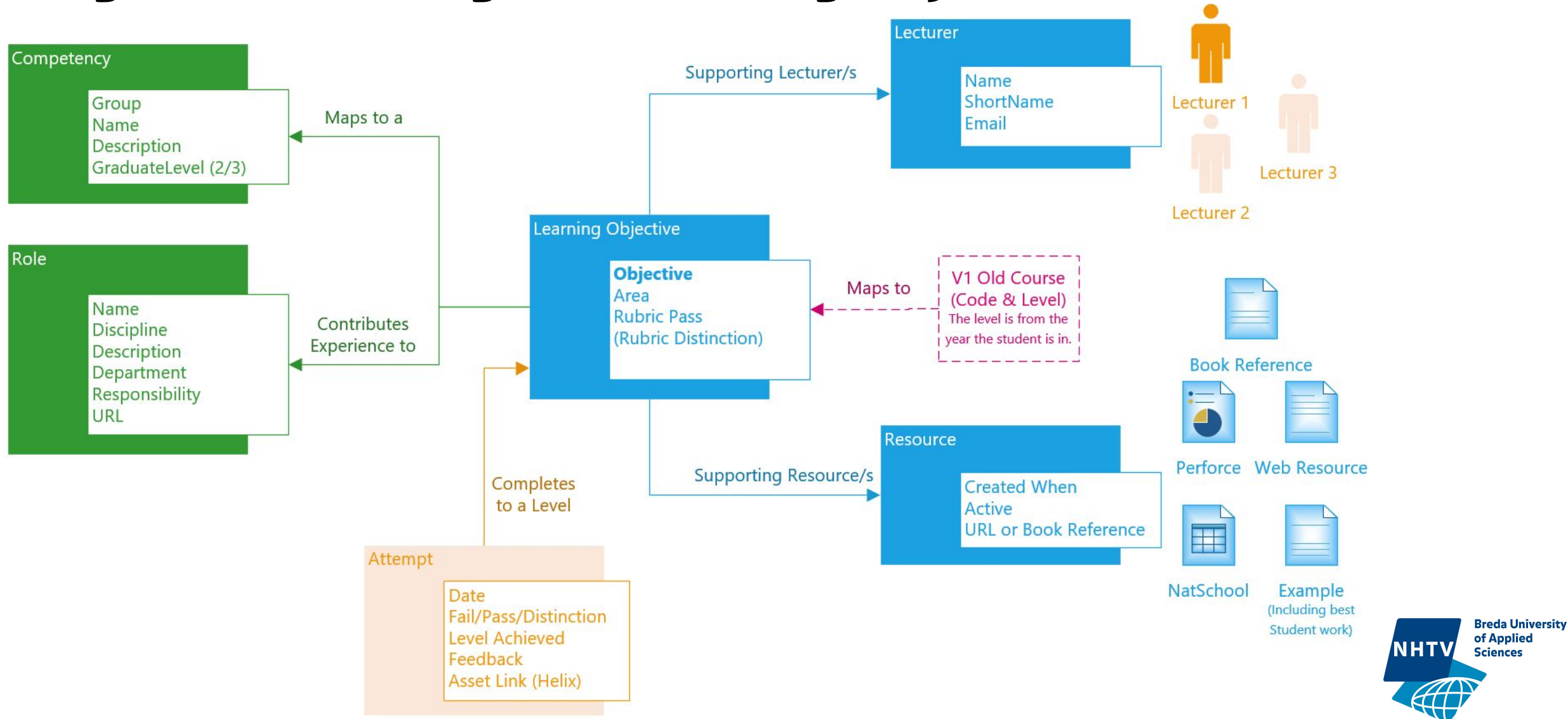
# Labs and workshops



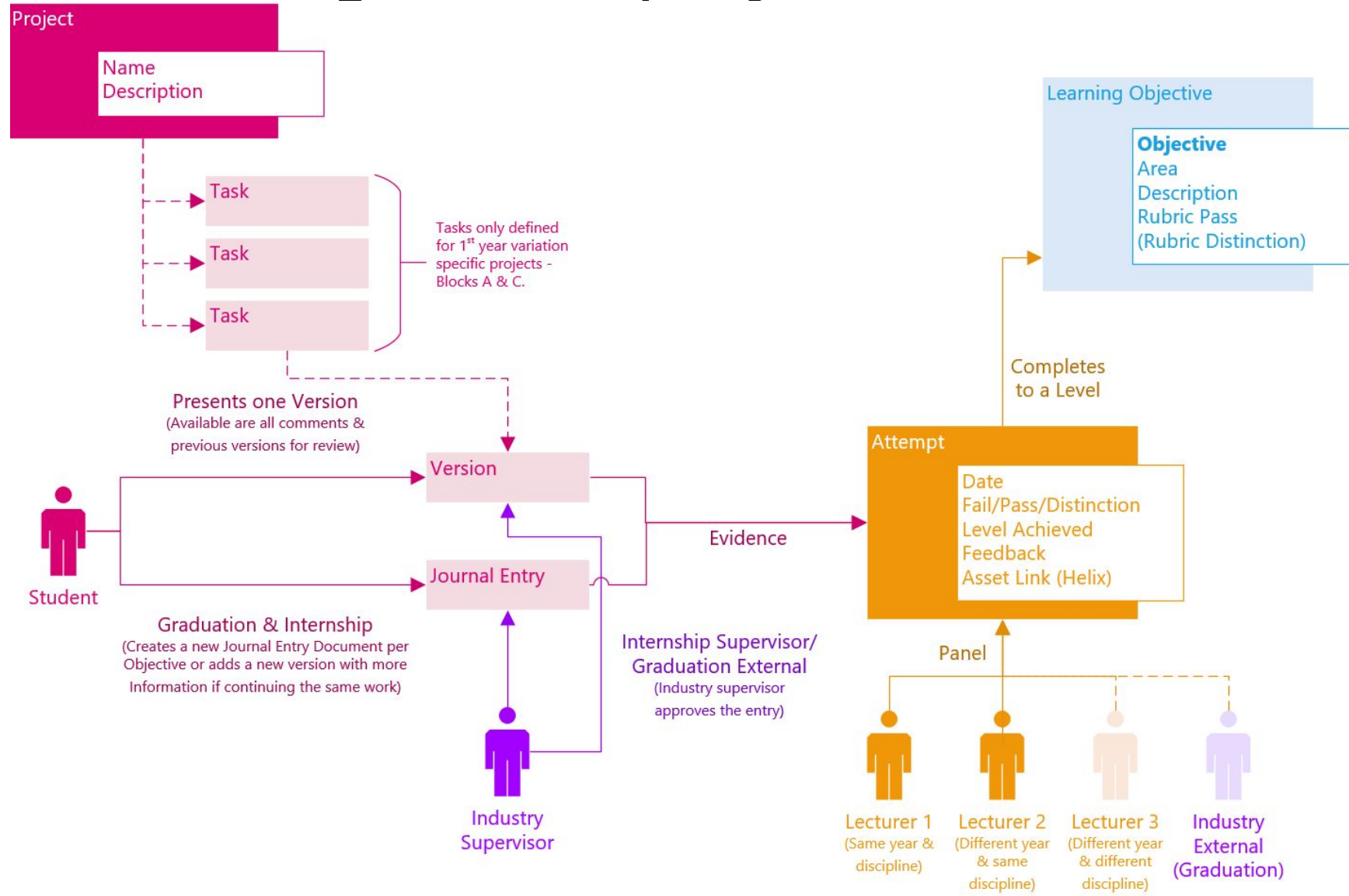


# Software architectural design

# High-level design - learning objectives



# High-level design - the project





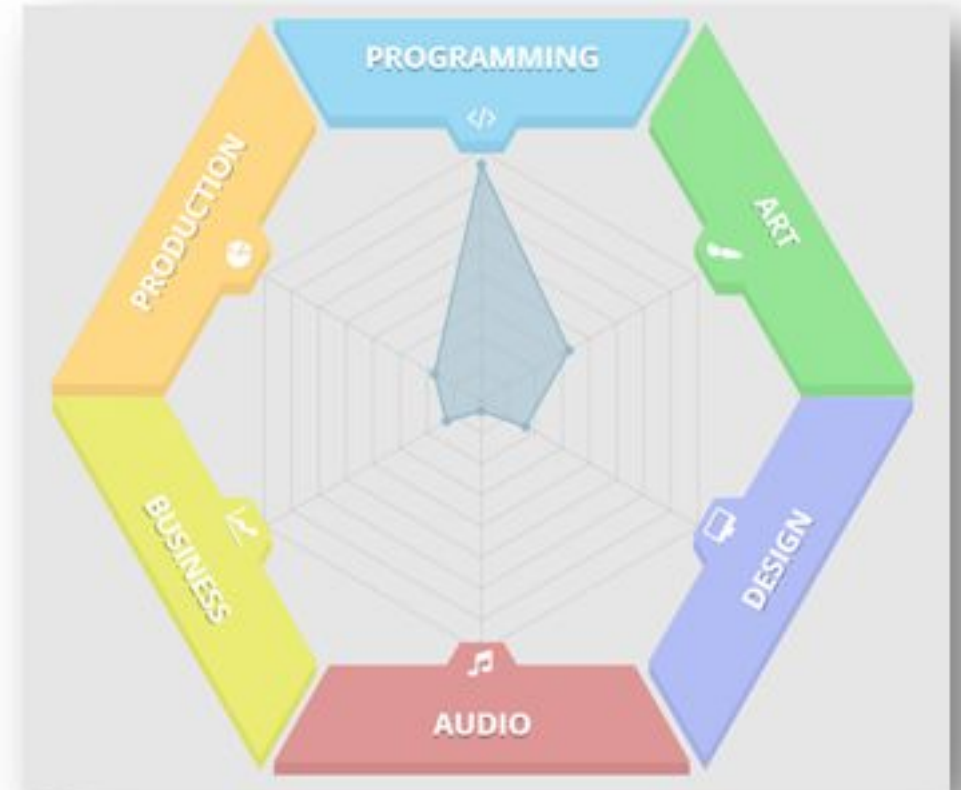
## Associated objectives

# Career profile

Students can review and bookmark careers

Look at what learning objectives are related to a career path

Students can find other career options within an area



The career profile showing what areas they have developed in.

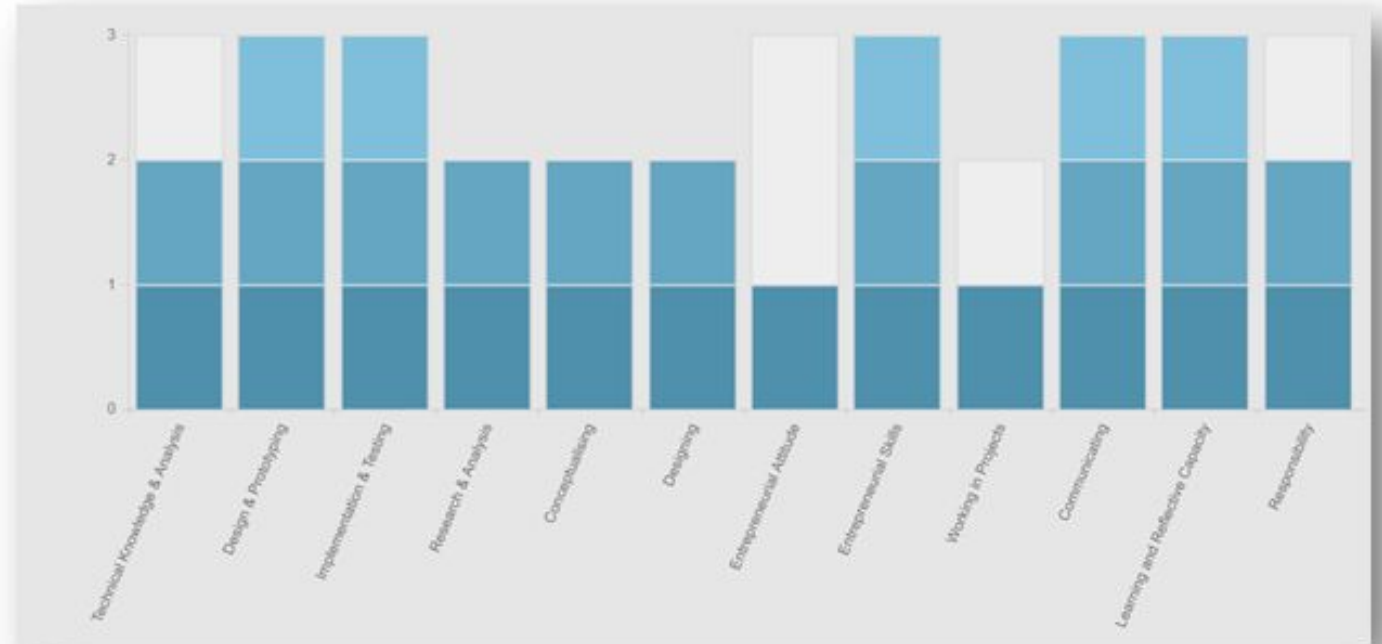
# Academic profile

Student can see their progress

They can find learning objectives that may interest them for a future project

The graduation profile is made quite clear to students

Maybe this is too much...



The academic profile for a student showing both their current position and graduate profile in silhouette



# Workshop Wednesday - conference like

CALENDARS

+ ADD WORKSHOP

Schedule

Unscheduled workshops

PREV

Wed May 31 2017

NEXT

All day

Morning

Afternoon

ROOM	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00
N1.222	<div>VA LECTURE</div> <div>RonnyFranken</div> <div><div></div><div>EDIT</div><div>31 / 202 OPTED-IN</div></div>	<div>MEET THE INDUSTRY: UBISOFT MA...</div> <div>MariellaMeijer2</div> <div><div></div><div>EDIT</div><div>144 / 202 OPTED-IN</div></div>	EMPTY	EMPTY	<div>HOUDINI TO UNREAL WORKFLOW PRESENTED BY FEIKE POSTMES</div> <div>ZoranArizanovic</div> <div><div></div><div>EDIT</div><div>11 / 202 OPTED-IN</div></div>	EMPTY	EMPTY	
N1.228	EMPTY	EMPTY	EMPTY	EMPTY	<div>Y3 PRODUCER REVIEW</div> <div>FrederickMilders, IjkeBotman, Gabriela112251</div> <div><div></div><div>EDIT</div><div>3 / 120 OPTED-IN</div></div>	<div>PRODUCTION EXPERT GROUP</div> <div>FrederickMilders, ReneDerks, IjkeBotman, Gabriela112251</div> <div><div></div><div>EDIT</div><div>8 / 120 OPTED-IN</div></div>	EMPTY	EMPTY
N1.226	EMPTY	EMPTY	EMPTY	EMPTY	<div>ART HISTORY, THEORY &amp; VISUAL COMMUNICATION</div> <div>RonnyFranken</div> <div><div></div><div>EDIT</div><div>8 / 120 OPTED-IN</div></div>	EMPTY	EMPTY	
N1.301 (Project Lab A)	EMPTY	EMPTY	EMPTY	EMPTY	<div>UNDERSTANDING YOUR CORE FEEDBACK LOOP</div> <div>ReneDerks, AlanJack</div> <div><div></div><div>EDIT</div><div>35 / 69 OPTED-IN</div></div>	<div>Y1 FIRST DELIVERABLE FEEDBACK: SHOWING PROGRESS ON YOUR GAME</div> <div>AlanJack, KarenaMorrison</div> <div><div></div><div>EDIT</div><div>31 / 69 OPTED-IN</div></div>		
N1.313 (Project Lab B)	EMPTY	EMPTY	<div>Y2 BLOCK D SCRUM CLINIC #3</div> <div>MartinRomero</div> <div><div></div><div>EDIT</div><div>11 / 69 OPTED-IN</div></div>	EMPTY	<div>CREATING EVIDENCE WORKSHOP (Y2, Y3, PR)</div> <div>JeremiahOosten</div> <div><div></div><div>EDIT</div><div>14 / 69 OPTED-IN</div></div>	EMPTY	EMPTY	
N1.401 (Project Lab C)	EMPTY	EMPTY	<div>PORTFOLIO REVIEW + MEET THE I...</div> <div>AnitaKreugel, MariellaMeijer2, KarenaMorrison...</div> <div><div></div><div>EDIT</div><div>16 / 72 OPTED-IN</div></div>	EMPTY	<div>ARCHITECTURE AND TERRAIN WORKSHOP</div> <div>AndrewPaquette</div> <div><div></div><div>EDIT</div><div>7 / 72 OPTED-IN</div></div>	<div>POLY PARTY</div> <div>Dan150557</div> <div><div></div><div>EDIT</div><div>9 / 72 OPTED-IN</div></div>	EMPTY	EMPTY
N1.405 (Project Lab D)	EMPTY	EMPTY	EMPTY	EMPTY	<div>UNREAL FOR ARTISTS</div> <div>RonnyFranken, NevilleMarcinkowski</div> <div><div></div><div>EDIT</div><div>14 / 80 OPTED-IN</div></div>	<div>ART REVIEW</div> <div>ZoranArizanovic</div> <div><div></div><div>EDIT</div><div>2 / 80 OPTED-IN</div></div>	EMPTY	EMPTY
N1.414 (Silent Study Room)	EMPTY	<div>HOUDINI GET TOGETHER</div> <div>ZoranArizanovic, RonnyFranken</div> <div><div></div><div>EDIT</div><div>6 / 22 OPTED-IN</div></div>		EMPTY	EMPTY	<div>AUDIO EXPERT GROUP</div> <div>JonathanWijngaarden</div> <div><div></div><div>EDIT</div><div>10 / 22 OPTED-IN</div></div>	EMPTY	EMPTY
N0.415 (Drawing Room)	EMPTY	<div>LIFE DRAWING. FREE SESSION</div> <div>ColinMorrison, RalphPalmer, ZoranArizanovic, LotharZhou, MartinBeresford, AndrewPaquette</div> <div><div></div><div>EDIT</div><div>14 / 40 OPTED-IN</div></div>		EMPTY	EMPTY	<div>LIFE DRAWING BEGINNERS</div> <div>MartinBeresford</div> <div><div></div><div>EDIT</div><div>6 / 20 OPTED-IN</div></div>	EMPTY	EMPTY
N0.317 (Tech Drawing Room)	<div>CLAY SCULPTING</div> <div>ColinMorrison, MartinBeresford</div> <div><div></div><div>EDIT</div><div>12 / 12 OPTED-IN</div></div>		EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY
Field Trip	EMPTY	EMPTY	EMPTY	EMPTY	EMPTY	<div>GOATS, GOATS, GOATS...</div> <div>MartinBeresford</div> <div><div></div><div>EDIT</div><div>24 / 30 OPTED-IN</div></div>		EMPTY

# STRAIGHT *JACKET* walk-through

# Technologies used

STRAIGHTJACKET is built on:

- ❑ Apache
- ❑ PHP/Bootstrap/HTML/CSS
- ❑ MySQL
- ❑ Currently running on a windows server
- ❑ Tested on Chrome only (due to resources)
- ❑ Gravatar.com for user icons





# Security



LDAP Authentication with 4 security levels:

- ❑ Not Logged In – View best student examples
- ❑ Student - View objectives/careers/workshops & Individual progress/playlists
- ❑ Staff - View objectives/careers/workshops, resource changes and Student progress/playlists
- ❑ Staff Admin (Testing Committee) – Staff abilities as well as new and edit objective request processing

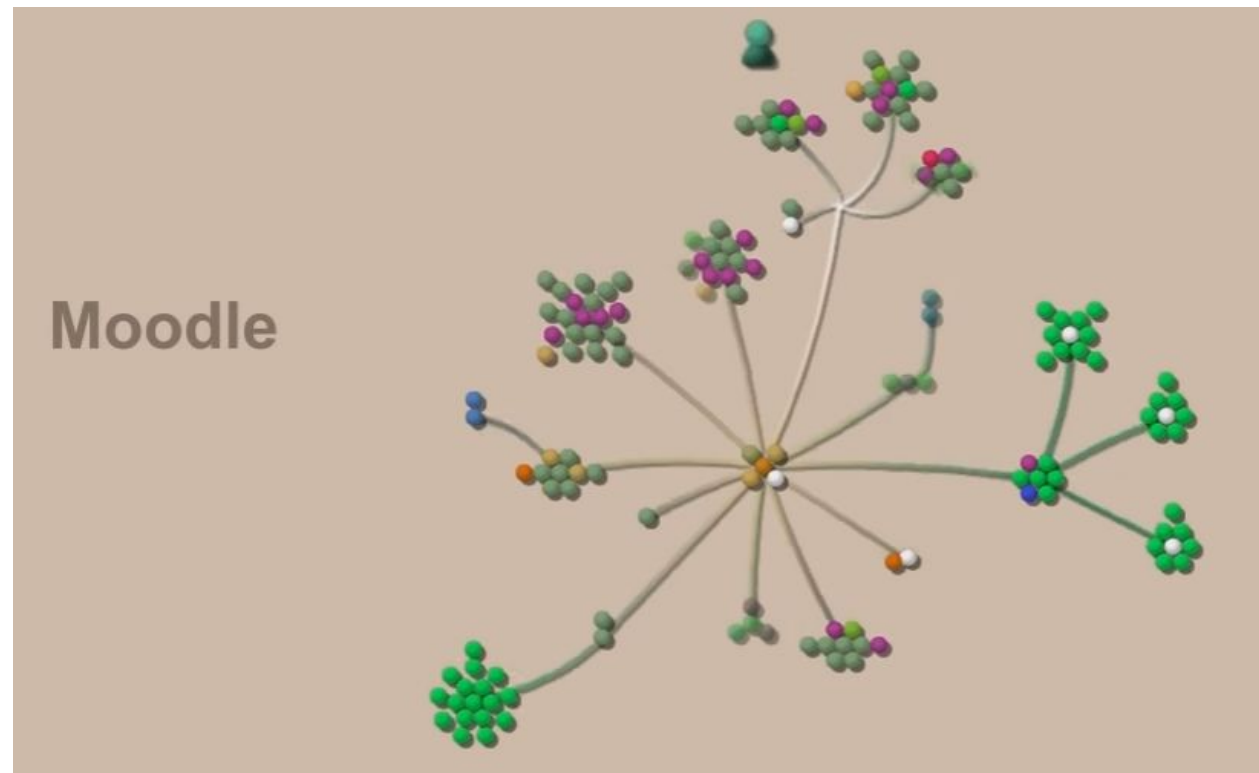
Objective are automatically versioned - this is a continuous improvement system

The more open the better!

# Visualizing student progress

Asset activity - Gource (<http://gource.io>) is open source and examples in the video (<https://goo.gl/oMykWd>) include:

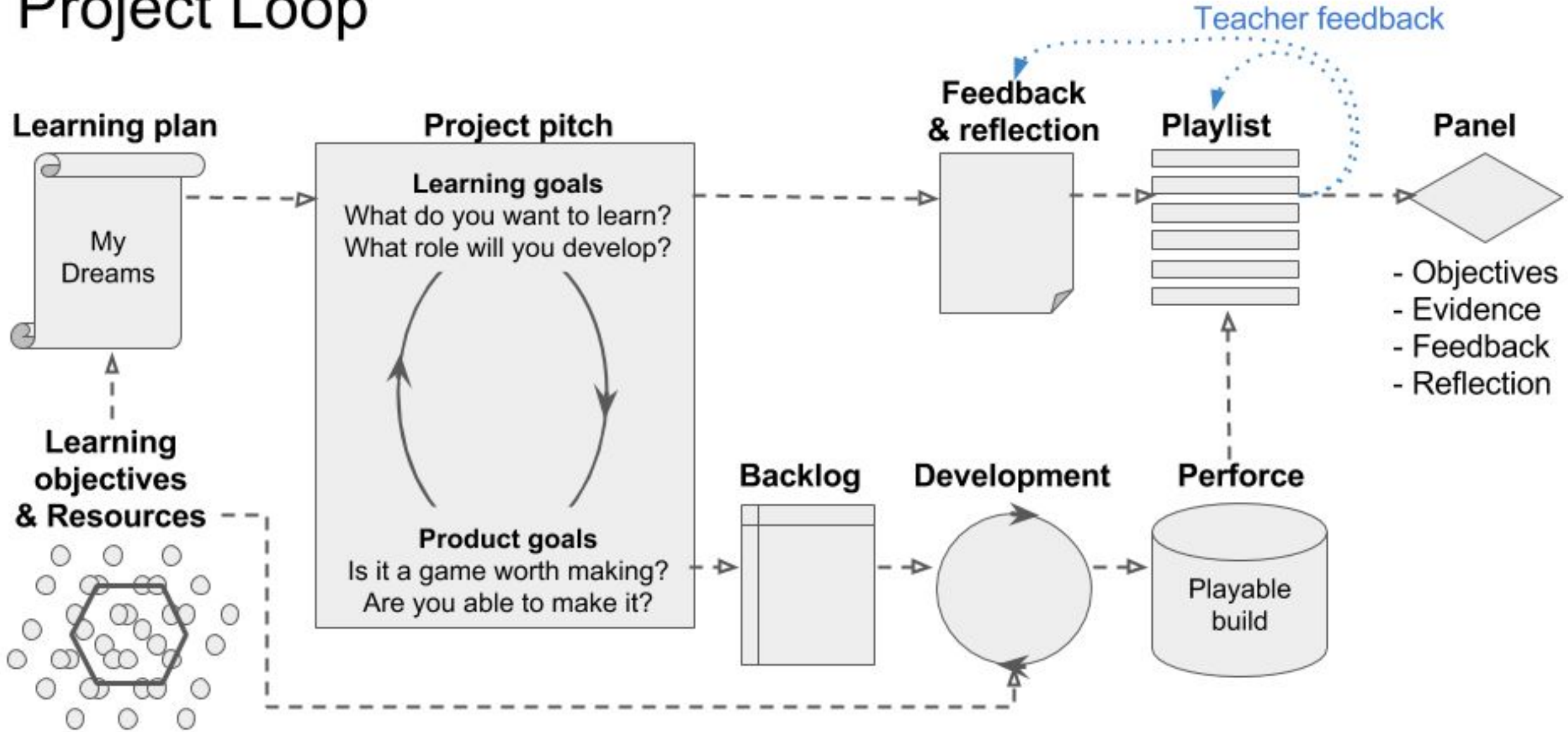
- Moodle
- Git
- Drupal
- PostgreSQL
- Ruby on Rails
- Linux
- VLC Player

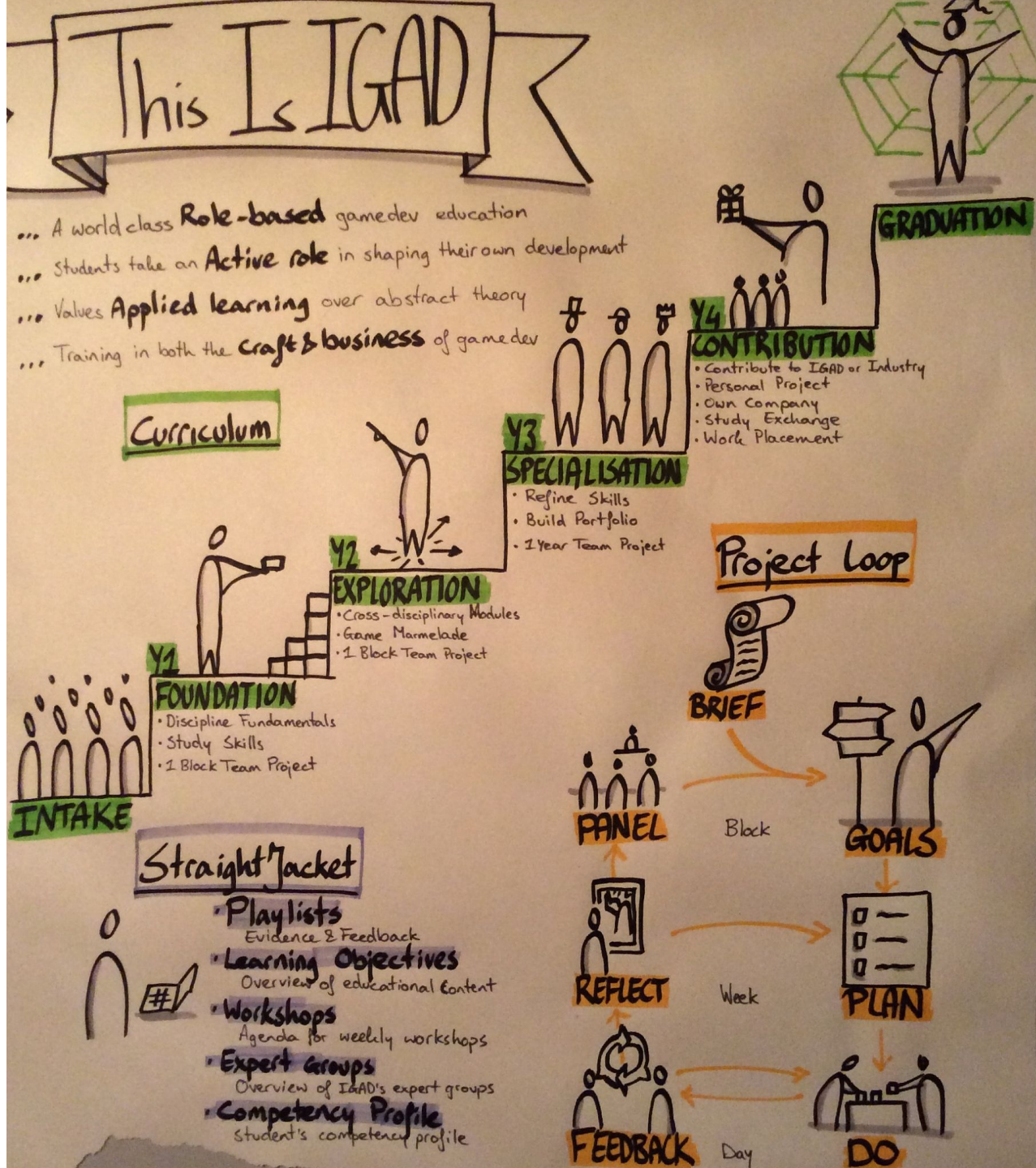


Staff trying to better understand it



# Project Loop





Staff working in teams?

# Master - Apprentice relationship

Feedback culture

Grows amongst student

Experiential is important

Peer pressure is important in engagement

Single point of focus

Portfolio artefact - what they want



# Change challenges

We lost 35% of staff

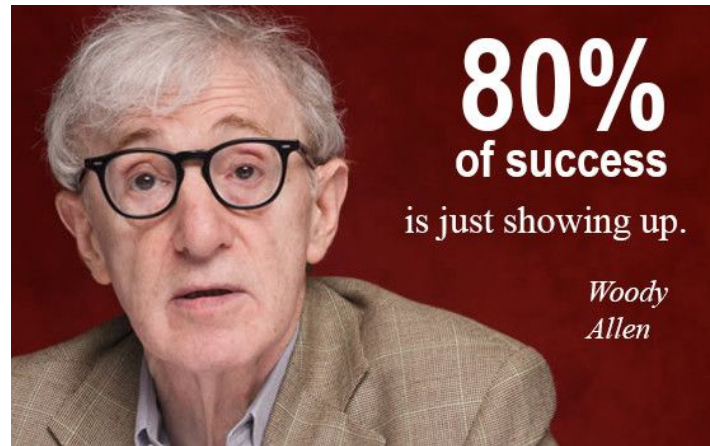
Research warned us that 33% of staff will be lost in such change...

Working in teams has really pooled knowledge, resources and support centrally but this could be done better

Supporting more personal development outside of the core project

*Faculty Resistant to Change of Assessment Techniques (mentioned also in the Lessons Learned from MOOCs - Deborah Keyek-Franssen)*

# Pareto principle or 80/20 rule...



[http://www2.latech.edu/~box/ase/papers2011/Ankunda\\_termpaper.PDF](http://www2.latech.edu/~box/ase/papers2011/Ankunda_termpaper.PDF)

# Interim accreditation

## Results from the 1st interim accreditation

# Accreditation - a success

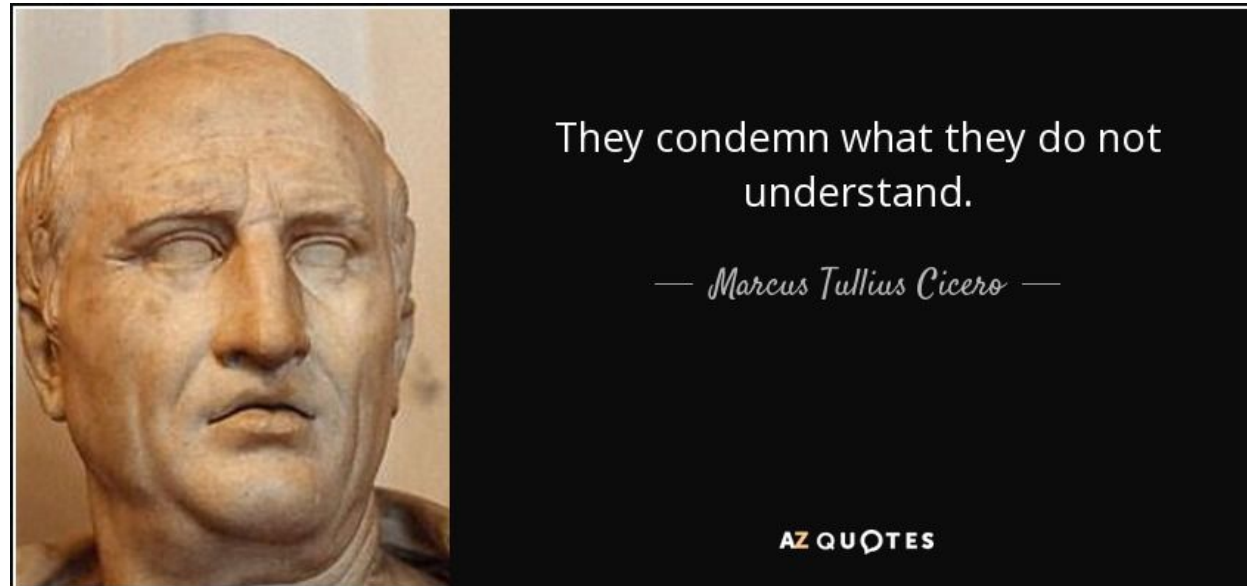
“The panel would like to compliment the programme for choosing such a bold innovative educational method, understanding very well that implementing a project-based curriculum with individual assessment challenges both staff and students. The motivation, commitment and enthusiasm of the staff was much appreciated. The panel is confident that this team will be able to fine-tune the new curriculum in the coming years.”



# But - accreditation discussion

“Make a film about a student journey to make a panel understand the individual pathway, to get a grasp of what it is all about.”

This highlighted that what we are doing is so different we have problems in helping outsiders understand what is going on



# Survey results

# Staff response

Staff extremely happy about not taking large amounts of work home

Amount of hours changed except that most agreed they no longer took work home

79% prefer the new way of teaching

78% felt that the relationship with students is more open

56% felt that it gives students a better portfolio

56% felt that the approach prepares them better for industry

86% felt that this approach makes their life/work balance better

# Student response

90% believe it is building them towards their desired career or internship

61% believe there are maintaining a good life/study balance

89% are happy being at the study

73% thinks this study approach is better than prior education experiences

26% think we need more staff (44% undecided on this)



# NSE results

## External National review

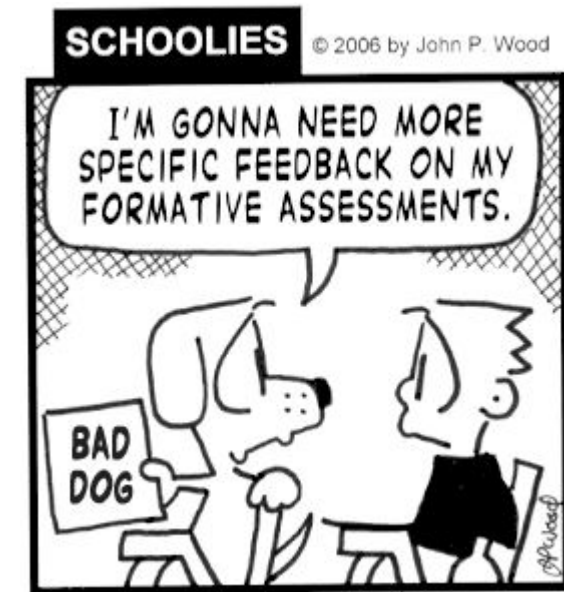
# NSE Discussion

We went to number 3 in the Netherlands in the first year from number 1

But now we are back at number 1

We performed strongly in nearly all areas

Number of assessments scored low...



# Outcomes

# Outcomes

Results so far:

- ❑ Staff and students use this tool a lot
- ❑ No more scheduling issues
- ❑ No more late grades - grades delivered within 48 hours (even immediately)
- ❑ Student learning is more individually than ever before
- ❑ Supporting a large variety of possible student specialisations
- ❑ Feedback culture is more positive
- ❑ Interest is higher in what each student is doing
- ❑ Dropout rate in project to be around 10 percent
- ❑ Knowing who will attend your workshop/lecture
- ❑ Increased attendance and contact time



Doing this yourself?

# Thoughts on making Role-Based possible for you

How might you approach this within your education?

- ❑ Give foundations
- ❑ Create interesting options to find, explore and undertake
- ❑ Be creative with existing tools
- ❑ Start simplistically
- ❑ Give students enough structure, but not too much

# Example software

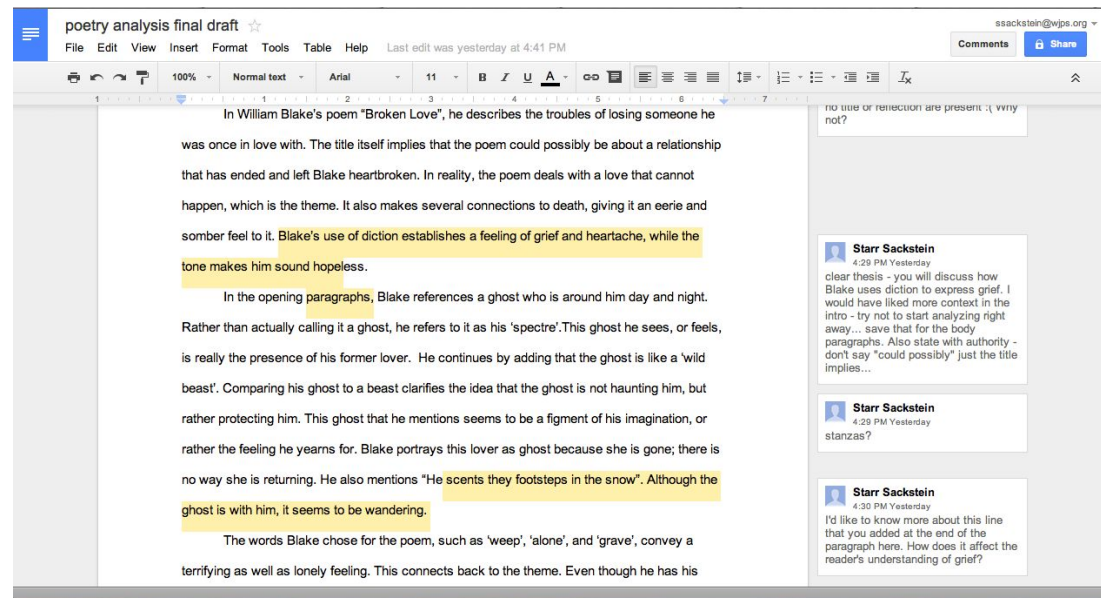
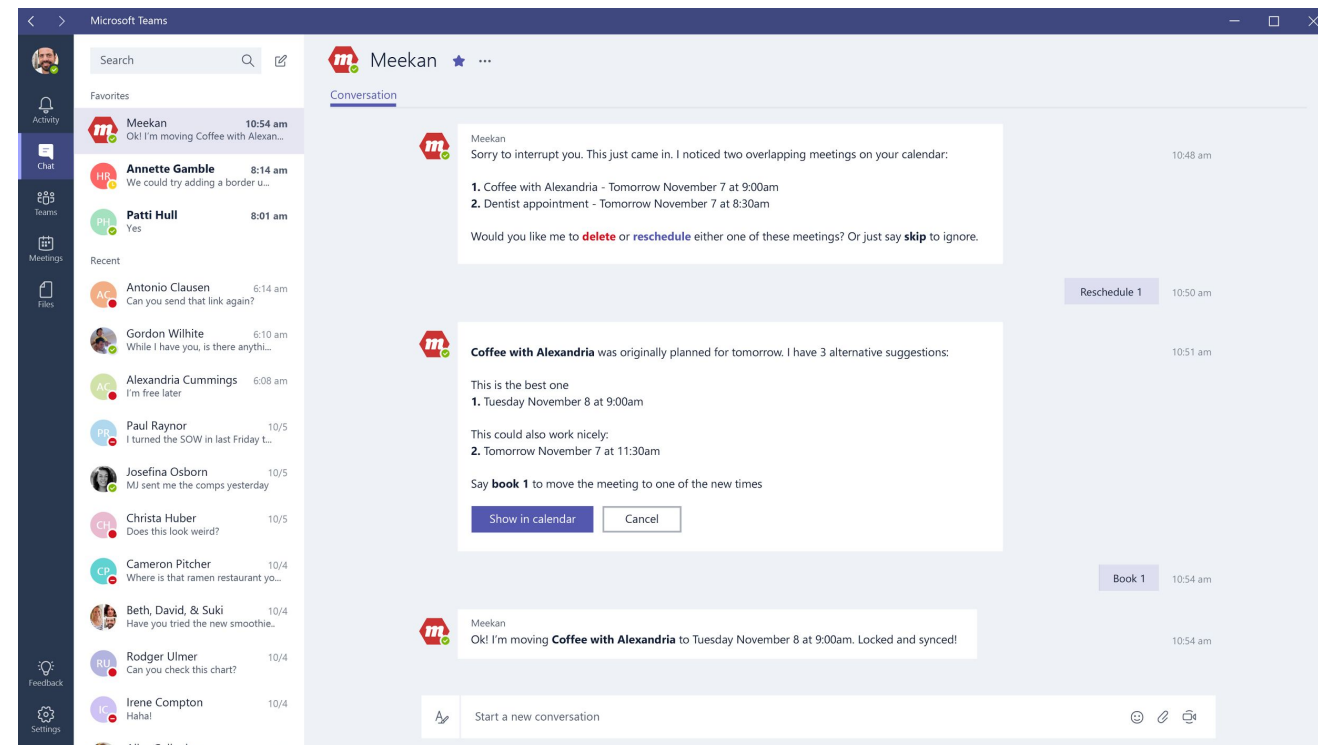
Microsoft Teams

Slack is great but...

Incremental document changes...

Google Docs

Office 365



# Version Control

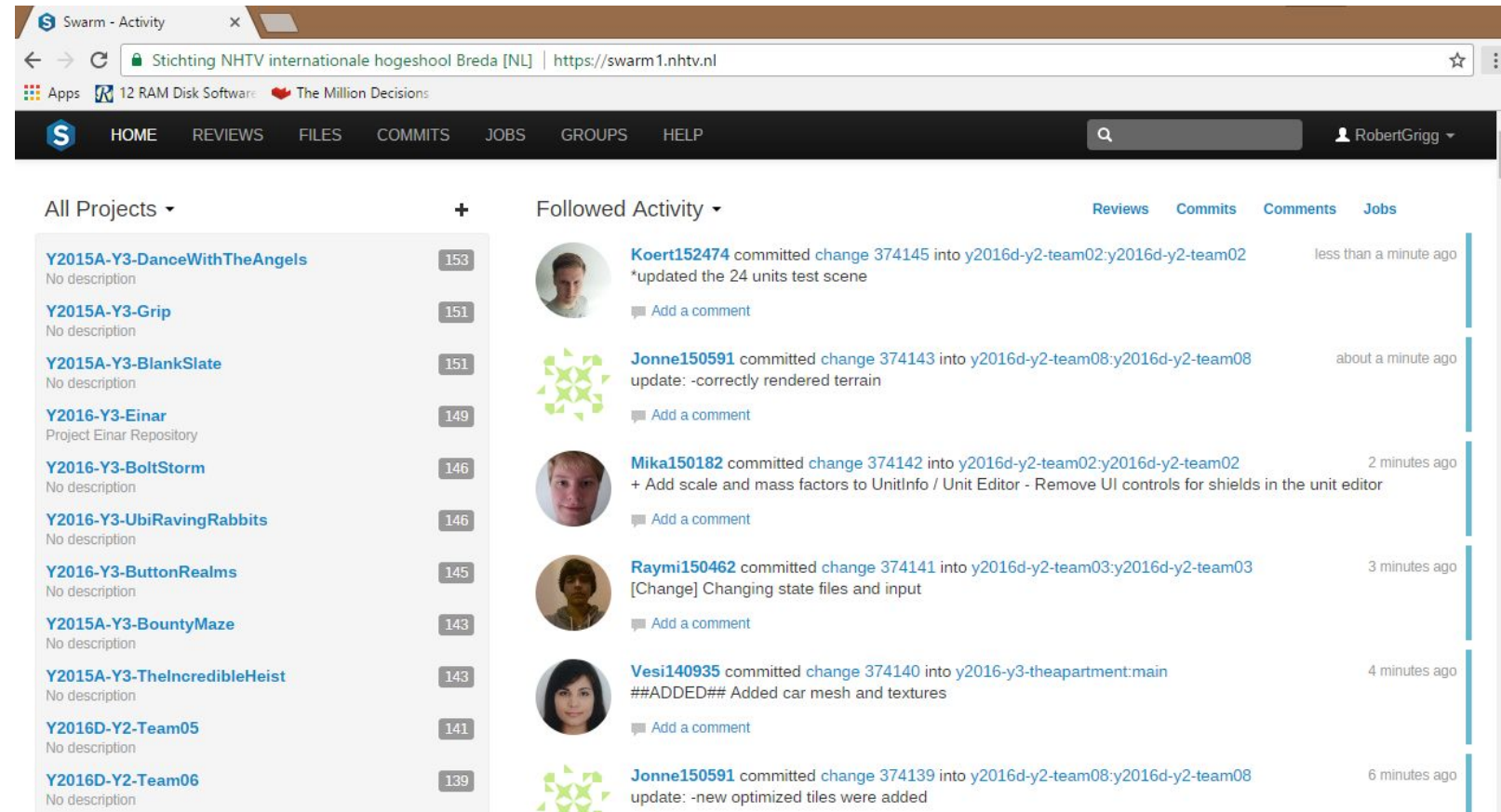
Can it help?

- Perforce/Swarm

- SVN

- Git

Lots of other options





announcements | IGAD S x

Secure | [https://igad-nhtv.slack.com/messages/C0L5KU2JZ/whats\\_new/](https://igad-nhtv.slack.com/messages/C0L5KU2JZ/whats_new/)

Apps 12 RAM Disk Software The Million Decisions

Slack needs your permission to enable desktop notifications.

**IGAD** v  
Robert Grigg

All Unreads  
All Threads

CHANNELS (167)

- # announcements
- # assembly
- # buildengineering
- # cool\_tools
- # football\_after\_class
- # graduation
- # htc-vive
- # hyphen-engine
- # marketing
- # maths-and-physics
- # perforce
- # perforce-admin

MORE UNREADS ↓

**#announcements**  
869 | 1 | IGAD-wide announcements

May 29th

May 31st — new messages —

**Bojan Endrovski** 4:51 PM  
Hi @channel, yesterday I brought a book for students to use, but it hasn't made its way back here. It's this one:  
<http://danielsimon.com/cosmic-motors-the-book/> (edited)

**David Wessman** 4:51 PM  
I borrowed it. Will return tomorrow.

**Bojan Endrovski** 4:51 PM  
Ah, ok

Yesterday

**Harald Wermelink** 5:51 PM

**What's New**

☒ Notify me about updates

May 16, 2017

**Slack screen sharing is now available**

Note: this feature is only available to paid teams.

Upgrading to one of Slack's paid plans will allow your team to screen share directly from calls made in Slack, as well as enjoy paid-only features such as group calls, an unlimited archive of searchable messages, guest accounts, and more.

To start screen sharing, you must be running the [latest versions](#) of our Mac and Windows desktop apps.


[Learn more on our blog >](#)

Slack - pay or you lose messages

### Backlog

- Bookmarks  
1
- Objective Elements
- Progression Diagram
- Search Bar
- Dashboard Page
- Objectives Page
- Skill Tree layout
- Teacher Page
- Insert Notifications
- Insert Mail connection

### Backlog (Integrations)

- Osiris - Grading System  
0/3
- Perforce - Project Creation  
0/5
- Email - Office365 or Gmail to SJ?
- Gondemicklag Robert  

- Staff/Student Portal Links - (only Virtual Desktop)  
1
- LDAP - User login and connection

### Swarm (Integrations)

- SketchFab
- three.js
- BlueprintUE.com
- Microsoft Office document compare not working.
- Add a card...

### In Develop

- MongoDB
- Layout and
- Auto gener collection c
- Current Da setup (Rob
- Event Syst handlebars
- Event Syst and messa
- File upload the events
- Socket.io i
- Add a card.

### Menu

DW F OLI

+ Add Members...

- Change Background
- Filter Cards
- Power-Ups
- Stickers
- More

Activity

- Robbie Grigg added Ronny Franken - NHTV to this board May 12 at 11:38 AM
- Robbie Grigg added Doug Walker to this board May 12 at 11:38 AM
- Oliver on Bookmarks

This is the parents attribute of the

Collections

My First Collection ▾



No Backlogs

Star collection

Collection options

Manage members...

Invite external guests...

✓ Show Backlogs

Show archived

Switch to another collection

Planning board

Planned

this card to "Doing" to update its s.

this card to see detailed mation.

card has a tag

card has a list of tasks.

/3

To see your collections, press the O key.

Click to learn about inviting team members!

Add card

Done

Go to favro.com

Sign up for Favro

Add card

To do

Unfinished

Show all

This is a card.

Doing - Planning board

Add card

# Special Thanks

Special thanks to Will Davis, Sam Gilbert, Elwin Verploegen,  
Oliver Engels, Matthijs van de Laar  
Bert Heesakkers, Ronny Franken, Doug Walker,  
Nova Ambachtsheer-van Schijndel, Jet Broeken, Iris Pinel



# Q & A

Find out more?  
Robbie Grigg  
[grigg.r@nhtv.nl](mailto:grigg.r@nhtv.nl)

# Session Evaluations Contest



- <https://tinyurl.com/OLCwELD-program>
- **Navigate to specific session page to evaluate**
- **Click orange “Evaluate Session” button on the right**
- **Complete session evaluation\***

Each session evaluation completed (limited to one per session) = one contest entry  
One (1) \$25 gift card will be awarded

*\*Contact information required for contest entry but will not be shared with the presenters.  
Winners will be contacted post-conference.*

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trending

on Twitter!

@ELDconf

@OLCToday