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UNIVERSITETI I EVROPËS JUGLINDORE УНИВЕРЗИТЕТ НА ЈУГОИСТОЧНА ЕВРОПА SOUTH EAST EUROPEAN UNIVERSITY

A proposed model for peer
assessment in the digital age:
Leveraging social media platforms

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17th Workshop on “Software Engineering Education
and Reverse Engineering”, Primosten, Croatia



Outline

- ▶ Introduction
- ▶ Assessment methodologies
- ▶ Peer Assessment (and the digital age)
- ▶ Proposed solution
- ▶ Conclusion



Introduction

- ▶ SEEU University digitalization initiatives
- ▶ The assessment of students in University is “complicated”
- ▶ Instructors have the traditional approach towards evaluation of their students and most of these approaches exclude the opinion of the students’ peers (*SEEU Quality Assurance reports*).
- ▶ Peer assessment in the other hand has been studied by several scholars whose aim is to include peer assessment by instructors/professors.
- ▶ The goal is to increase student engagement in education, both in learning and in evaluation of their peers in transparent way.



Assessment methodologies

- ▶ The standard two approaches in assessment of students' learning are based either on:
 - ▶ Quantitative (numbers, weight, percentage) or
 - ▶ Qualitative methodology (teacher's opinion and discretion)
- ▶ The concept of "flipping the classroom": students provide a lot of knowledge in the teaching instead of the teacher (more engagement)
- ▶ Our approach with technology tends to combine several important elements into assessment: the feedback to students and teachers, the practical approach and the motivation of the students.



Assessment methodologies: Online methodologies

- ▶ Online tools allow us to do proper assessment through:
 1. Quizzes, Online Exams, Assignments.
 2. Discussion boards and forums

- ▶ The questions that bothered us:
 1. Is grading metrics enough? and
 2. Can we leave assessment to the peers themselves?

Professors disagree with question 2



Peer assessment (and the digital age)

- ▶ How can peers assess their peers through evaluation of their knowledge as well as offer feedback on their comments?
- ▶ Technology is an enabler
- ▶ We argue that where peer assessment is implemented, there is a positive correlation between exam pass rates and positive peer assessment
- ▶ So, teachers should not be afraid!



Peer assessment (and the digital age)

► Bringing the in-class discussion and voting -> online (StackOwerflow example)

#	Student name	Votes	Answer 1	Answer 2	Answer 3	Answer 4	Answer %		Coefficient
1	Student Name1	17	YES	YES	NO	YES	75%	(17/20)* 0.75	0.6375
2	Student Name2	13	YES	YES	YES	YES	100%	(13/20)* 1	0.65 *
3	Student Name3	15	YES	NO	NO	NO	25%	(15/20)* 0.25	0.1875
4	Student Name4	20	NO	YES	YES	NO	50%	(20/20)* 0.5	0.5
5	Student Name5	12	YES	NO	NO	NO	25%	(12/20)* 0.25	0.15



Proposed solution: The prototype (not finished 100%)

- ▶ The proposal is to create an integrated application that enables Facebook Group features in classroom for discussion and peer assessment on one hand, and Google Classroom for evaluation and content delivery on the other hand.

Tools/Platforms used:

- ▶ Facebook Groups and Facebook SDK
- ▶ Google Classroom and Google Classroom API
- ▶ Our middleware: The “Integration Controller” as a Facebook App

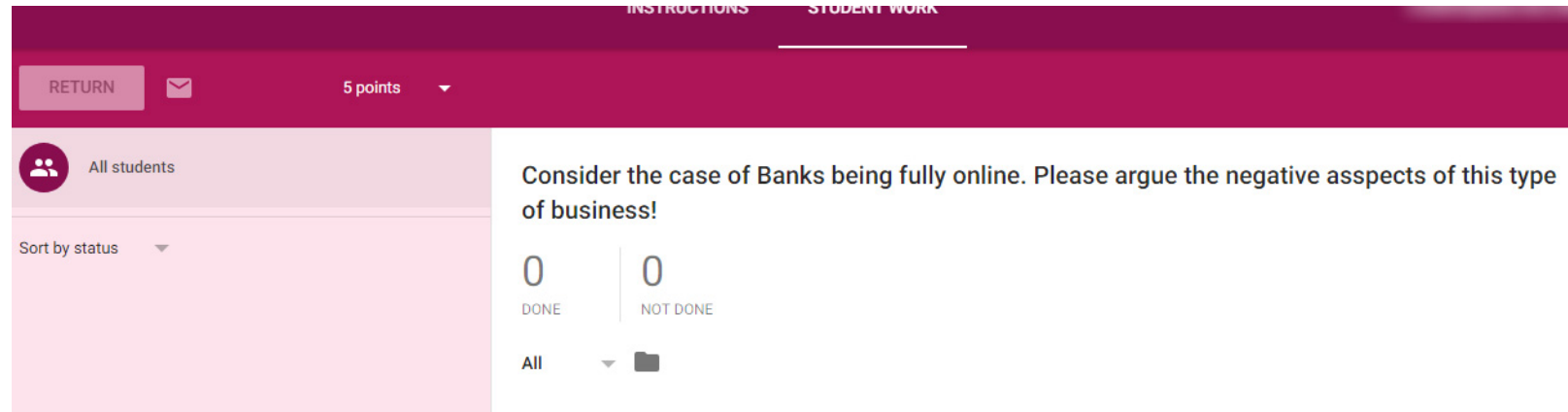


Proposed solution: The Facebook side

The screenshot shows a Facebook group page for 'Test Classroom', which is a secret group. The page features a pinned post by Adrian from February 17, 2017, with the text: 'Consider the case of Banks being fully online. Please argue the negative aspects of this type of business!'. Below the post, there are three comments: one from Burim Ismaili stating 'You cannot withdraw 10.000 euros from ATM. In regular banks you can do so!!!', another from an unnamed user saying 'No problem for individual usage, for normal people is ok to have fully online bank, but for businesses it may be difficult.', and a third from Adrian saying 'DONE!'. The right sidebar contains options to add members, a description, tags, location, and a 'Create Group' button.



Proposed solution: The Google Classroom side



The Integrated controller collects the data from Facebook through the API, applies our methodology and allows the teacher to grade them partially.

These results are posted to Google classroom assignments.



Conclusion (and problems)

- ▶ The modern students are “spending” their time in social media platforms, which is considered to be the new “place” to deliver knowledge to the new generations.
- ▶ The peer assessment methodology that we recommended in this paper is based on the emerging trends in technology and the use of digital means to conduct teaching & learning.
- ▶ This approach both in methodology and technology solution aims at the end to increase student engagement in education, both in learning and in evaluation of their peers in transparent way.
- ▶ **But... not everyone is fair in their peers' evaluation (mainly joking)**
- ▶ **Students tend to ignore these assignments or just complete it without any interests (Our position was wrong 😊)**
- ▶ **Maybe change the target group from Computer Science to Language students**



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Thank You!

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