December 6, 2017: minutes of the meeting

Present: Simone Deparis (SD), Volker Gass (VG), Daniel Gatica-Perez, Cécile Hébert (CH), Christof Holliger, Silvia Hostettler (SH), Olivier Lévêque (OL), Félix Naef, Jamie Paik, Christopher Plummer, Jamila Sam, Donna Testerman, Irène Vogel Chevroulet, Robert West.


Invited guest: Pierre Vandergheynst (PV), vice-president for education

Agenda of the meeting:

1) Approval of the Agenda
2) Approval of the minutes of the last meeting
3) Working group on TAs: update
4) Working group on Computational Thinking: finalize members
5) Further topics for working groups
6) Communication strategies: how to get input from all teachers; how to inform on our actions
7) Varia

Minutes:

The meeting is opened by Cécile Hebert at 12:15 PM.

1) The agenda is approved.
2) The minutes of the meeting of 17 October 2017 are approved.

3) Working Group on Teaching Assistants (TA)
Jeroen van Hunen is leading the Working Group on TA’s. Members of the WG on TAs: Georg Fantner, Wendy Queen, … (Simone Deparis is not part of TA working group). Right now, one TA from the math section is allocated per course. This section cannot fully respect the concept of “productive hours”.

PV: PhDs in mathematics teach a lot, much more than PhDs from other sections, therefore we need to balance the system as much as possible. How can these TA tasks be imposed? It is very difficult to allocate the correct amount of credits to TAs.
Jamila Sam: PhDs are loosely allocated and it is difficult to access them and make their teaching support mandatory.

PV: The working group needs to look into quality insurance, the workload, the mandatory character of these tasks, the credits allocate, etc. Why do we allocate credits? Because by allocating credits for TAs (called “heures non-productives”), this teaching activity is recognized as education by funding agencies. Why not use post-docs as TAs? It is done, but it can be difficult, because the postdocs are usually paid by granted research projects (e.g. EU project or CTI projects). Can we make a difference between working hours and productive hours? 35 productive hours per week plus 6 hours non-productive hours that need not be declared.

VG: In the framework of the CTI projects ,85% of total hours are considered as productive hours. These hours need to be accounted for, the other 15% percent are considered as unproductive hours and can be “freely allocated”. This practice is authorised by SEFRI.

OL: The message given to PhD students that their teaching activities are called “unproductive hours” is not ideal. However, this does not need to be an explicit message to them.

4) Working Group (WG) on Computational Thinking

Members of the WG from CCE:
- Olivier Levêque (IC)
- Simone Deparis (MA)
- Felix Naef (SV)

PV: Currently, there is no limit to the number of participants of this WG, we are looking for a wide representation of scientific fields. Andrew Oates is chairing the Working Group. CCE is mandated to look for further members – also for members from outside of the CCE.

Jamie Paik: What is the purpose of the computational thinking working group? Is the working group also looking into infrastructure, such as design software for the students?

PV replies that she can ask the VPE for this software directly and does not need to contact or join the working group on computational thinking for such issues. The working group should be composed by January 2018. Roland Tormey is in charge of organizing a workshop on computational thinking with two well known experts in March 2018 at EPFL. Detailed information will soon be available. Craig Carters’ message from his lecture on 10.11.2017 at EPFL: [To develop computational thinking courses] “Don’t involve computer scientists only”.
5) Further topics for working groups:

**teaching languages, MAN and EPFL promotion**

Hans-Jörg Ruppen suggests (input by email) to establish more 1st year courses in German and suppress those in English. Comment by PV: Many students migrated to Physics I in English because of the quality of the teacher (because the teacher was teaching at the MAN and the students appreciated him).

Christoph Plummer: Is there a demand for courses in German?

PV: The demand is decreasing. The growth of EPFL is to a large extent due to international students (many from France), therefore there is a debate in certain political circles in Switzerland that EPFL needs to attract more Swiss students, as EPFL is funded by tax payers money. However, many international students remain in Switzerland after their studies and pay taxes, therefore the polemic “wasting tax payers money on international students” does not really hold true. Nonetheless, efforts should be made to increase the number of Swiss students. 70% of new jobs are created in the German-speaking region of Switzerland.

For students enrolling at EPFL without the maturity in maths-physics, it is very difficult to pass the first year. Before, CMS increased the chances for Swiss students (even with other maturities) to successfully pass the first year. Therefore, should EPFL re-open CMS to all Swiss students?

One option might be to open MAN to everyone? MAN starts in the spring semester. This would allow male students to do the army service or allow all future students to go traveling for a few months before starting EPFL. Admit those students for MAN, and then they would enrol for the first year. For those who did first year, then MAN and still fail: they can no longer be admitted. But for those who would enter directly into the MAN in spring, the rule would be different: failing the MAN would just count as one failure. They would then have a second chance passing the first semester with more than 3.5.

Maybe opening the MAN to all students would also be an advantage for female students, because they could catch up on math and physics which they are not always so interested in during gymnase. PV thinks this might be an interesting suggestion for the EPFL Direction. The fact that this option would potentially incite students to travel for several months appears to be an excellent idea.

PV:

There is a course in German for Physics (for approx. 40 students). It should be kept and not replaced by a course in English. Why would the students from the Swiss-German part choose EPFL instead of ETHZ?

SH: Maybe there are surveys that already indicate why the Swiss German students enrol at EPFL and what kept their friends from choosing EPFL? If this data does not exist, CAPE should conduct a survey among first year Swiss German students. And then act on the indicators that appear to be central in the pro-/contra-EPFL choice. Action item (SH): Contact Roland for this data and if it doesn’t exist, discuss how and when such a survey could be conducted.
PV: Increase promotion at the Swiss German schools and use MAN and CMS as incentives for choosing EPFL. Students with professional maturities can attend CMS and then enter EPFL successfully. CMS alumni have a 75% chance of passing successfully their first year at EPFL.

PV: Student enrolment from Suisse Romande has decreased by 8% because of the reputation of EPFL that math and physics are “too difficult” here. VG then suggests to include a slide in EPFL promotional material on the opportunity to enter MAN in the spring semester. But only open to Swiss students as the places are limited.

PV: Students having failed the MAN are allowed at ETHZ. Students having failed MAN were not allowed at Unil nor UniGe. And at some other universities, the decision of admission depended on the faculty. HES allowed those students. PV read 200 comments made by students who failed MAN and were where some of them have then been refused by other universities. These students are blaming EPFL for badly coordinating with other academic institutions.

Can we find a better name than MAN? “Mise à Niveau” not ideal. Suggestions to the CCE bureau are welcome!

CH: Can we get the input from teachers on the impact of MAN? (e.g. from physics teachers). In her Physics II course, CH could see a big impact as otherwise a non negligible proportion of the students who follow the course know they have failed the year already and are not motivated.

OL: Many students are satisfied having followed the MAN. Right now: students with a grade below 3.5 have to take the MAN, could we also open the MAN to students with a grade between 3.5 and 4.0? CH thinks that not many students would take this option, as they are close to catching up. SD suggests that opening MAN to students above 3.5 might not be the right message, because they work hard and need to feel confident that they are capable of successfully finishing their first year. OL thinks we should wait until next year and see what happened, we are still in an experimental phase. There were many students who were really lost and after the MAN, they did well.

CH asks PV: Do you think it is useful to have a working group on MAN? PV: Yes this could be an interesting idea. If the students who pass through MAN perform as well as what CMS is able to achieve, then the system is working well. SD: Maybe it is too early to establish this working group. OL: Maybe we don’t need a working group but the CCE Bureau could compile a list of statistics (also solicit CCE members for data) and the survey done by the students and then discuss this in March 2018 at the level of a CCE meeting. PV wishes decisions on the MAN to be data driven. As the MAN is still at the level of an experiment, we need first more data in order to decide on the future steps. VG: We should continue with the MAN until the first students having followed MAN finish their Bachelor in order to have a complete view of its impact at different levels.

5.3 Point put forward by PV: Creation of a Center for Learning Sciences. Many new jobs will require digital skills. EPFL is often asked to react to this reality and to
contribute to teaching these skills, also at the level of vocational training (as is already done, e.g. by Prof. Dillenbourg). E.g. EPFL robots are being used in many schools. But the Haute Ecole Pédagogique (HEP Vaud) expresses concern that the high school teachers will not be able to teach these skills. Can EPFL offer this sort of teaching as a service to society? Can EPFL help teach programming skills to high school teachers? Can EPFL help find ways to teach math to kids who have an attention span of 5 minutes? EPFL should open a Center for Learning Sciences. EPFL is already providing many such services but they are scattered throughout EPFL for the time being. Such a center would help centralize these services and increase visibility and be in a better position to attract funding. How can EPFL contribute to diminish the danger of the emergence of a digital divide?

6) **Communication strategies**: How do CCE members get input from other teachers? Daniel Gatica-Perez: How was it done in the past? SD: This sort of information was collected through section or faculty meetings etc. Therefore it would make sense that CCE members communicate on the topics discussed by the CCE at these opportunities and also ask for input. However, in some sections (e.g. SV or IC) teaching is not a “hot” topic, whereas this is the case for instance in MA.

It is suggested that the CCE bureau sends the statistics of the MAN in March 2018 to all teachers/lecturers at EPFL (unless this is done by PV) using the same list that calls for the CCE member elections.

Next date of CCE meeting: **Tuesday 01.03.2018**

**Meeting is closed at 13:50**

SH / CH / OL / 06.12.2017