1) How can teachers help debunk fake news in a classroom, when teacher-students today are deeply immersed in digital media outside the classroom? How does this initiative can enhance the digital literacy of prospective teachers?

The most important part of being able to debunk fake news in your classroom is being able to debunk fake news yourself. Student-teachers must take the time to remove themselves from the world of online interactions for a little bit to become digitally literate citizens of the online (and their own local/school-wide) communities. They must help their students recognize when a news article is fake, thus they must help them to understand the concepts of fabrication, virality and deception. This can be done as an in-class activity where students are asked to determine which articles are the most reliable, most fact-based, etc. Not only will this help students, but it will allow all teachers (not only prospective teachers) to inform themselves on fake news and how to debunk it.

2) What is the difference between Open source and propriety source software? Please justify your answer with examples of these sources.

Open source software is one that is available to all for free; proprietary source software is one that is registered to/owned by one person (or organization) which may have made it available for the masses but at a cost. Another difference between the two is the open source software can often be edited by anyone who has access to it (with the exception of the source code), although it may require you to have an account while proprietary source software is typically unable to be edited by anyone other than the publisher themselves. One example of an open source platform is Wikipedia; a proprietary source software is the Windows operating system.

3) What are the different components of a lesson plan? How does a teacher need to be careful while planning his lesson for different grade levels?

A good lesson plan has a learning goal (where the purpose of the lesson is explained), the learning objectives (where the goal is broken down into steps (to make it easier to achieve) as well as activities during the lesson), the learning outcomes (where the expected results at the end of the lesson are described, this part may include assessments), and the grade level. Since many concepts are discussed in varying detail at different grade levels, teachers must make sure not to go beyond the scope of what students must learn in a certain grade while planning their lesson; they must consider their prior knowledge, what the official standards require as an outcome, and student abilities.

4) How do the models of TPACK and SAMR change the ways we teach with technology in a modern classroom? What aspects of these models would you include in your future lesson plans?

TPACK and SAMR give teachers a point from which they can start to incorporate technology in their classrooms. When technology was first being introduced in schools, there were not really any guidelines for them to follow; they were thrown into a dark cave with no light. TPACK and SAMR allow teachers to break down the technology they use in their lessons by making them ask themselves whether it will be used to substitute or augment something, or whether they are using it for pedagogical purposes or to convey the content in a different way. I think that TPK and TCK are the two most important aspects that I will use to augment and modify my teaching strategies as I develop as an educator.