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Seminar 1 Answers:

1. A BMI is a way of connecting signals given off by a brain and physical actuation through real time direct connections from the brain to the computer to the actuation device ie motors. This concept makes use of the electrical signals sent by brain which are then sensed by electrodes with the purpose of sending data to the computer.
2. The Real-Time data interpretation is the most challenging step because it involves receiving data from a brain which could be in any variable type and write code to process the data. Writing complex code to process information is easy to fill with errors. Noise is also accounted for in this step.
3. 15-30% of the population is considered to be BCI illiterate because not every brain is the same. Some of the “Brain Folds” that we will be able to read with the BCI might not be the parts of the Brain that we need to observe to get usable data.
4. Although some people might see BCIs as invasive, the BCI can do a lot of good for people in general, from helping paraplegics walk again using exo-skeletons, to enhancing people physically using permanent brain implants. Ethically, enhancing people with brain implants is questionable, but helping paraplegics and stoke victims is a great use of technology.