1. **As Saiph Savage stated, what kinds of jobs are crowd workers in AI doing?**
   Sijun Tao (sijuntao)
   Generally, crowd workers do jobs that promote the training of AI through human work. In detail, they help the training of machine-learning model in different fields. For the image, they label the image data that will be fed into the models. For the audio, they transcribe audio for the voice recognition algorithm to learn. For the websites, they flag websites that include pedophilia or speech that could incite hatred so that search engine can learn to avoid them.

   Jiajing Zhu (jiajingz)
   As Saiph Savage stated, crowd workers do jobs like labeling data, transcribing audio and labeling websites that might be filled with hate speech or pedophilia.

2. **What is the role of crowd-work in AI and Data Science in your understanding after reading the articles? (2 - 3 sentences)**
   Sijun Tao (sijuntao)
   Crowd-work plays a facilitating role in the training of AI. It serves as an enabler to improve the speed, coverage, and efficiencies of AI through low-cost repetitive and untechnical work.

   Jiajing Zhu (jiajingz)
   Crowd-work plays an important role in AI and Data Science. Crowdworking provides the source of the human knowledge that machine intelligence relies on to train algorithms. Their work is heavy.

3. **According to both of the articles, what are the possible issues (technical and/or social) in crowdworking? List all the issues you found. (Please list 3 or more issues, and write 1 - 2 sentences for each issue)**
   Sijun Tao (sijuntao)
   1. The crowd workers earn low wages. They earn much less than the US minimum wage. However, crowd work is the main source of income for some crowd workers.
   2. The crowd workers cannot develop their skills. Doing the repetitive and untechnical work all day, they lose the future better job opportunities.
   3. The crowdworking is not recognized or admitted in most cases. Most employers do not know the crowdworking platform and admit crowd workers' role.
   4. Crowdworking decides what people can see in the Internet world. As Mary and Siddharth stated, content moderation and curation still need workers to figure out what to leave up. Crowdworking makes the review mechanism murky for consumers.

5. Crowdworking has hidden trouble. A variety of future jobs needs the creative efforts of human. However, current crowd workers are restricted by the crowdworking and cannot provide creative work.

Jiajing Zhu (jiajingz)
1. Low-paid: Crowd workers are paid below minimum wage
2. Future job opportunities cut off: Crowd workers are given no opportunities to develop their skills that can be recognized.
3. Their work is underestimated. Their work takes longer time than estimated.

4. Based on these issues or otherwise, what do you think are important considerations to be made when employing crowd-workers for AI or Data Science projects? (3 - 4 sentences for each consideration)
Sijun Tao (sijuntao)
1. The future career of the crowd-workers. In fact, crowd-workers are great human resources. When employing them, providing them with opportunities to develop their skills can also be taken into account.
2. The acknowledgement of crowd workers They are accustomed to gig work and may have fresh suggestions for how to manage a platform. Their efforts are worthwhile. Admitting their role can help them better contribute to crowdworking.

Jiajing Zhu (jiajingz)

We should take the career development of the crowd workers into consideration. Learning and retraining should be happened continuously. Thus, they can avoid getting pushed into lower paid and lower-skilled occupations. More opportunities can be provided to them.