As a commercial organization heavily investing in innovation relevant to AI technology and applications, Alibaba Group hereby contributes some observations and comments to the insightful Issue List in “WIPO Conversation on Intellectual Property (IP) and Artificial Intelligence (AI)” (WIPO/IP/AI/2/GE/20/1) as below:

Regarding Issue 1: Inventorship and Ownership

Comment 1: In the case of inventions autonomously generated by AI, if the AI application can be named as the inventor, how to identify the individual attribute of the AI application? For human beings, there is mature personal identification systems to identify the inventor. For AI applications, how to build such individual identification system, should the hash details be submitted to patent administrations for such inventor identification? Otherwise, AI applications will be recognized as a general entity.

Comment 2: Following Comment 1 and considering Issue 1(i)(ii), if the AI application has been trained by a human being before autonomously generates an invention, should the human being be named as an inventor?

Regarding Issue 2: Patentable Subject Matter and Patentability Guidelines

Comment 3: What is the difference between AI algorithms and abstract concepts in perspective of Subject Matter? If the object of seeking patent protection is the applications of AI algorithms, should the scope of protection be limited to the disclosed embodiments to avoid being recognized as abstract concept? For example, how to limit the protection scope of AI algorithms inventions relating to specific scenarios in broad domains like Imaging, NLP, and Speech. If the protection can be extended to the broad domains, it's too broad and more relevant to abstract concepts.

Regarding Issue 3: Inventive Step or Non-Obviousness

Comment 4: Is general examiners' capacity sufficient to examine inventions autonomously generated by AI? Should patent administrations invest in AI assisted examination system, or even consider to develop a AI examiner?

Comment 5: Considering Issue 4(ii)(iii), AI applications can learn almost all prior arts in any field, to what extend should the criteria of Inventive Step be improved to examine an autonomously AI generated invention? For example, according to current examination practice, an invention normally will be recognized as inventive if it can't be taught by combining 3 prior arts. For an AI inventor, it's very easy to generate an invention combining more than 10 prior arts.