The upgrade of applied talents cultivation in the background of AI

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Abstract. In the AI age, a series of high technology, like AI technology and information technology, trigger deep reform in industry field. To meet the talents requirements of AI, colleges should promote the mission of talents cultivation. A few forward steps should carry on. They are pedagogy remodeling replacement of teaching technology, arrangement of education resources and extension of learning space.

1. The deep impact faced by vocational position in IA age

1.1. more and more jobs will be replaced by machine
The development history of science and technology suggests that the great improvement of science and technology can drive human culture progress, but at the same time, it can also destroy human society. The emerge of AI(Artificial Intelligence) is initiative to free human hands. It can make machines work more efficient and functional. But following the excessive development of AI and stronger function, the development trends have exceeded the range of relieving human labor burden. On the contrary, it begins to impact labor market so that more and more jobs are replaced. Structural unemployment and general unemployment will coexist in labor market.

1.2. the cloud-labor job will appear
Nowadays, there are plenty of web platform between employees and employers on which employers post target task on web platform. At the same time, employees can choose one task on the basis of their professional abilities and time arrangement. One the task is chosen, the platform will generate one short-term employment agreement. The employees should finish the task due to the deadline and committed content. And the employers will pay the committed salary after the task is checked and accepted. This new-type labor form does not need multifarious rules to control the work process of the employees or the duties which the employees should obey in a prolix style. All the needs of the employees are understanding the requirements and task and finish the task on time. Then they hand over the qualified task outcomes.

2. the talents cultivation upgrade to meet the demands of AI development

2.1. Accelerating the cultivation of compound and creative talents
In the age of Artificial Intelligence, more and more human labor can finish their jobs on intelligent devices. Those workers who can solve only one kind of specific work problems are easiest replaced...
workers. So applied universities should upgrade the aim of talents cultivation in time and quicken the cultivation of compound and creative talents. Students’ capabilities of solving complicated problems and innovation should be promoted so as to form discrepancy competitive advantages which are different from AI capability structure.

2.2. Strengthening the characteristic cultivation of talents
In the age of AI, mechanical and repetitive physical labour on the assembly line would be replaced by automatic equipment. Routine and transactional brainwork would be replaced by AI. Intensive, standard and processized product style shows the sign of obvious recession. Personal service and custom-made production are becoming new trend of commodity economy. Objectively, higher vocational education should transform the style of talents cultivation and strengthen the characteristic talents cultivation.

2.3. Promoting the intelligent standard of student administration
Student administration is an important aspect in campus administration and teaching management in colleges. College students scale is a very big number and these students are in the period of puberty which is full of curiosity. So student administration is a tough issue in colleges. In the AI age colleges should construct the platform of student administration which combines the technology of big data with AI technology. The platform can not only roundly collect and analyze students’ information of family, study, live and development, but also early find out their psychological abnormality so as to prevent the occurrence of security incident. At the same time, it can also classify student groups, supervise the process of student study and manage libraries to provide convenient learning space which can solve the issue of students’ safety management and teaching administration.

3. the issue of college talents cultivation in AI age

3.1. the vision of talents cultivation lags behind the requirement of AI development
Traditional teaching in colleges is teacher-center model. The teachers are the dominant power in teaching process. The students are in the position of passive learners. In the AI age, the social and economical development require that workers should have the capabilities of more creativity, self-management, self-drive and self-learning. So these requirement suggest that colleges talents cultivation should be student-centered and pay more attention to the cultivation on personality development and potency digging. But for now, teacher is the teaching dominant leader. They pay less attention to the development of student personality and self-development cultivation.

3.2. Teaching theorical knowledge is too much emphasized in the process of talents cultivation
The barrier between different disciplines and programs is much severe. Interdisciplinary education develops slowly. In the field of applied higher education, disciplines and programs are not only one kind of education unit and the classification result of professional knowledge, but also a symbol of administration system which is highly fragmented and segmentary. Different disciplines and programs distribute different academic resources. At the same time, administration system is the frame and basis of redistributing and reproducing academic resources. In the system of education administration in which disciplines and programs are the boundary, every discipline is self-reclusive. There is little possibility to be chiastopic fusion. In AI age, the trend which different disciplines mix together becomes more and more obvious. But for most colleges, the integration of traditional disciplines and programs are stumbled by traditional management system and all kinds of stakeholders. The practical integration between disciplines and programs is still tardy.

3.3. the specification of talents cultivation can not effectively meet the demand of workers’ comprehensively general skills in AI age
The cultivation of general skills is weak, which is contrary to the demand to the synergy between work positions in AI age. The work character in AI age has deeply widely shifted. The concentration degree
in industry production process gets constantly improved. At the same while, the requirements to operational technologies become lower, but the requirements to technician in the capabilities of communication, leadership and cooperation get increased. In fact, the specification of talents cultivation in colleges focuses on knowledge memory. They pay little attention to technical capabilities so as to get employed easily. So we should transfer work center of talents cultivation in colleges.

3.4. the curriculum development and textbook which focuses on AI is lagged
In curriculum and textbook development, most colleges have offered AI courses, but the scale and sorts of courses can not meet the demand of practical learning from students. Likewise, in new types of courses, for example network courses and experiential courses, specialized AI courses is pretty few, which heavily affect the efficient advance of AI education in colleges.

4. the upgrade route to cultivating talents in AI age

4.1. remodeling education mission which should focus on cultivating comprehensive talents who meet the development requirements of AI industry
Colleges should construct the mission of talents cultivation which all students must be training as a whole. This means that all students need develop all potency and personal capabilities. The talents specification in AI age is different with traditional industry. More and more human labor will be replaced by highly automatic and intelligent machines. Those talents who are good at only one kind of instrument or machine will be hard to find proper work position. Therefore, colleges should transfer orientation of talents cultivation. The concept of all-round development for AI talents should be set up in colleges. In the process of talents cultivation, the merge between professional education with AI discipline. Especially we should put cultural quality education on the same page with technical education. At the same time, the cultivation of vocational comprehensive capability should be pay more attention so as to promote students’ all-round development of capabilities and character which can help students adapt multielement vocational environment and their personal development of long-term career

4.2. promoting the transition of educational technology to strengthen the application of AI technology in college courses
Colleges should strengthen information construction to improve the standard of information teaching. The combination between AI technology and information technology is the typical character of AI education. So colleges should increase investment on information technology. On the basis of information construction, more AI education instruments and technological resources should be introduced to improve the standard of information and intelligence construction which can help the deep combination between AI technology and information technology.

4.3. constructing teaching and learning environment which matches AI application
Colleges should promote the construction of intelligence campus. Intelligence campus is one kind of integration environment in which internet of things is the foundation linking work, learning and living. The construction of intelligence campus should depend on practical data and standard processing system. The needs of teachers and students must also be adequately considered. The management of intelligence campus usually begin from good top-level design. The planning and implement of top-level design obey systematic thinking and methods. Then the integrated framework which mixes AI technology with teaching, research, administration and campus life is constructed.

5. Conclusion
Colleges should optimize all kinds of educational factors on the basis of AI utilization. The first step is to integrate all educational factors and optimize curriculum setting. Traditional campus has many limits about curriculum offering because of the restriction of educational resources and technological condition. Some regional industries badly need lots of technicians and engineers. But many colleges cannot finish
this job of talents cultivation because they have no enough professional educational resources and teaching conditions. Nowadays, applied colleges can share professional course resources between different colleges and districts by using the combination of AI technology and information technology, which will develop more space to cultivate various talents.

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