Asia Pacific Science Press

Asia Pacific Economic and Management Review
ISSN(O):3005-9275
ISSN(P):3005-9267
Vol. 2 No.3 (2025)

Research on the Internal Logic, Practical Dilemmas and Promoting Policies for Improving Income Distribution through Digital Transformation of Industries

Xiaoshu Sun[1], Zhiyuan Wang[2]*

1.School of business administration, Northeastern University, Shenyang, 110819, China

2.School of Marine Science and Engineering, Shanghai Maritime University, Shanghai, 201306, China

Corresponding author: Zhiyuan Wang, heu5257@163.com

Abstract: Income distribution is an important issue in China's modernisation path, and is a key part of achieving the goal of common wealth. In the era of booming digital transformation, digital factors can improve income distribution and promote the realisation of common wealth through the skill premium, lowering the entry barrier to work, easing capital deepening and improving resource mismatch. However, due to the constraints of the digital transformation process itself, the substitution of data elements for labour elements has resulted in skill unemployment, the diffusion path of digital transformation has exacerbated the widening of the income gap, and the free qualities of the digital era have exacerbated the oppression of capital on labour. Therefore, it is necessary to take a multi-pronged approach and make joint efforts from the perspectives of the government, enterprises, and labourers to give full play to the positive effects of digital transformation on improving income distribution, and to promote the substantial progress of common wealth.

Keywords: Income Distribution; Labour Income Share; Digital Transformation; Common Wealth

Published: Jun 5, 2025

DOI: https://doi.org/10.62177/apemr.v2i3.373

The issue of labour income distribution has long been a focus of research. Since the 18th National Congress, income distribution has been raised to an exceptionally important position by the Party Central Committee. The report of the 20th CPC National Congress also re-emphasised the need to solidly promote common wealth, improve the distribution system, and build a coordinated and complementary system for primary, redistribution and third distribution. The main reason for this is that while China's economy has developed rapidly and achieved world-renowned great achievements, whether the people can share the fruits of development is a more important issue. And with the progress of big data, the Internet, cloud computing, artificial intelligence and other digital technologies, the development of digital transformation in all sectors of society has flourished, causing a disruptive impact on the internal logic of income distribution and growth. It has led to a redistribution of income between labour and capital, which has had a significant impact on the achievement of the important goal of advancing common prosperity (Li Xiaoyuan and Zhong Chenglin, 2024)[1] However, digital transformation is a double-edged sword to improve income distribution, and while empowering the labour force to reach higher value realisation through technology (Chen Menggen and Zhou Yuanren, 2021[2]), its unbridled development will also produce serious substitution of labour (Wang Yongqin and Dong Wen, 2018[3]). Therefore, against such a background, clarifying the mechanism of the impact of the digital

transformation of industries on income distribution, especially the labour income part of it, identifying the realistic dilemmas in the process of development, and proposing corresponding policy recommendations accordingly, are of great practical significance for the improvement of the structure of the future income distribution and the achievement of the goal of common prosperity.

1.The internal logic of the digital transformation of industry to improve income distribution and enable common prosperity

The transformation of industrial development into digitalisation is a major trend in the world today, and the transformation of various industries into digitalisation is an important breakthrough for innovation and development. Digitalisation promotes the transformation and upgrading of traditional industries, and will have a profound impact on the form of employment as well as labour income. With the continuous deepening of research, more and more researchers believe that the digital transformation of industries is also an important influence on the proportion of labour income. On the one hand, digital transformation can speed up the flow of production factors to enhance the total factor productivity of enterprises and improve production efficiency; on the other hand, it will also directly or indirectly affect the distribution of income between capital and labour, affecting the distribution of labour income.

1.1 Skill-biased mechanisms

The core of digital transformation remains technological progress, and the type of technological progress will have an asymmetric impact on capital and labour (Yu, Donghua and Chen, Ruying, 2020)[4]. One of the main manifestations of this in labour income issues is the bias towards skills and unskills. The skill-unskill bias of digital technologies affects the labour income share through both the skill premium and the lowering of the entry barriers to jobs. On the one hand, the development of digital technology will create many new high-skilled jobs, such as programmers, and the increasing demand for high-skilled labour will lead to a skill premium, which will increase the income share of high-skilled labour (Duan Wei et al., 2023)[5]; on the other hand, the application of digital technology will bring back many job opportunities that have been covered up in the era of factory labour, and will increase the number of low-skilled labour jobs, such as takeaway workers, live streaming bandwagoners, which require lower skills from the labour force and may not have a skill premium, but such jobs can lower the entry threshold of the job (Yuan Dongmei et al., 2021)[6], and the labour force is able to enter the labour market at a much lower cost, and the income level of many originally low-income or zero-income labourers has been increased significantly, leading to a significant increase in the overall The proportion of labour income rises, leading to an improvement in the structure of income distribution.

1.2 Capital deepening mechanism

The deepening of the digital transformation of industries will have a reducing effect on the degree of capital deepening, which will be manifested in the driving effect of the data element on the digital labour element. Under the digital economy, the rapid development of e-commerce economy, sharing economy and other new forms and modes of business has generated a large demand for flexible, communicative and service-oriented labour. And through the efficient integration of big data, the factors within the economic system accelerate the free flow and optimal allocation, making the large number of idle and flexible labour elements in the market as fully utilized as possible, adapting to the large demand for such labour on the digital economy platform. As a result, under the leadership of new industries and modes, unskilled jobs involving multiple types of operations, sales, management and services, including network operations, online sales, e-commerce customer service, short-video auditing, and takeaway riders, have continued to emerge. In particular, in the field of living services, new types of jobs such as webcasting, takeaway riders, and online car drivers created through the clustering of online platforms have greatly broadened the pathways and channels of employment, and increased the share of labour income in national income. These new types of jobs are generally characterised by low employment thresholds, few time and space constraints, and flexible hiring methods, which are conducive to absorbing the employment of special groups such as laid-off workers, people with disabilities, and retired military personnel, thus creating more employment opportunities for low- and middle-income earners, and moreover contributing to social stability and security. The digital labour force has comparative advantages in terms of creativity, complexity, flexibility and service, etc., so the data factor and the digital labour force factor can well complement

each other, thus promoting a substantial increase in the efficiency of labour production, and thus increasing the share of income obtained by the digital labour force factor.

1.3 Resource mismatch mechanisms

The digital economy can alleviate distortions in factor allocation, and the degree of factor mismatch has an important impact on the level of income (Jiao, Yinxue, and Bai, Peiwen, 2021[7]). On the one hand, digital transformation can alleviate the mismatch problem within the labour force. The main reason is that digital transformation can make the access to information smoother, and reduce the mismatch of labour by opening up the channels for labour to find jobs (Qiu et al., 2023[8]). In the traditional society, the labour force is in a more vulnerable position in the labour market, for the employment market information is not enough to grasp, it is more likely to appear bad money to expel good money lemon market, thus making the market overall wage level are lower. If the labour force can grasp sufficient information in the employment market and achieve free movement, then the labour force can find more suitable jobs for themselves, and the labour force can move to the jobs that are most suitable for them, which can raise the wage level of the labour force group as a whole, increase marginal income, and ultimately increase the share of labour income. On the other hand, digital transformation can alleviate the problem of mismatch through structural jobs. The development of digital transformation will give rise to a part of new types of jobs and change the work structure of the labour force. Before digital transformation, some enterprises occupied a monopoly position in the market due to their mastery of key resources and technologies, and with limited resources, a large number of ordinary labourers are difficult to enter such industries and give full play to their potential, thus making part of the labour resources wasted (Zhang Tao et al., 2013[9]). However, with the development of digital transformation, the speed of market change accelerates, the market structure is constantly changing, and it is difficult for the traditional advantageous enterprises to continue to maintain their dominant position, while the speed of corporate imitation is increasing, making it difficult for the emerging industries to form a monopoly position in a short period of time. In turn, the key elements are difficult to be monopolized, and the labour force that was not fully utilized has been fully utilized, and the labour force is also able to make its own salary level rise through spontaneous mobility which is conducive to the reasonable mobility of the elements to achieve a better allocation (Wen Yanbing & Lu Xueqin, 2018[10]), and ultimately achieve the optimization of the income distribution structure.

2.Digital transformation of industries to improve the reality of the dilemma encountered in income distribution

2.1 Substitution of data elements for labour elements resulting in skilled unemployment

Data elements will inevitably have a substitution effect on traditional labour elements. Digitally processed work has a clear comparative advantage over traditional work that is repetitive, procedural and manual in nature, significantly increasing production efficiency and reducing production costs, so data elements will, under certain conditions, substitute for traditional labour elements that are less economically efficient in the production process, thereby reducing the share of income they receive. The substitution of traditional labour factors by data factors will further lead to a reduction in the market demand for traditional labour factors and a decline in the number of traditional jobs offered, thus causing a certain degree of employment shock and wage squeeze on traditional workers (Li, Minggui and Cao, Yutao, 2024.)[11] The substitution effect is mainly concentrated in traditional industries. Traditional industries such as traditional manufacturing and traditional service industries are located at the low end of the industrial chain, which contains many production links with high repetitiveness and substitutability and low labour productivity. Therefore, intelligent technology will impact these low-end manufacturing and service industries with a very high productivity, which will make the traditional workers in these two types of industries face the risk of unemployment. For example, production line workers in traditional manufacturing industries and retail and wholesale and law and order maintenance workers in traditional service industries are jobs that are simple and repetitive, and thus have a higher risk of being replaced by AI. The World Bank's World Development Report 2019: The Changing Nature of Work points out that AI is replacing thousands of repetitive, low-skill jobs around the world; and the McKinsey Global Institute predicts that nearly 20 per cent of job functions in China will be replaced by automation by 2030. As a result, the negative effects of the development of the digital economy on labour and employment will lead to a decline in the share

of traditional workers in national income. Moreover, this negative impact of substitution is likely to be felt over a longer period of time and on a wider scale. The impact of digital transformation on labour and employment will intensify as the development of digital technologies deepens. In the early stage of digital development, the digital industry, due to its own scale limitations, has a relatively narrow scope of application in other fields, and the resulting labour employment impact is mainly concentrated in low-skilled manual workers, such as production line workers, bookkeepers, etc.; with the further development of digitalisation, the resulting employment impact will be extended to medium-skilled cognitive workers, such as administrators and research assistants. . This long-term and far-reaching impact of the digital transformation will further reduce the share of labour income in national income distribution.

2.2 Diffusion path of digital transformation exacerbates widening income gap

Since the digital transformation of industries is a slow and long-term process, there is bound to be a certain sequence in the process of its development. In the process of its development, there are bound to be differences in the progress of digital transformation between different industries and regions. Industries more closely linked to information technology and developed regions will be the first to complete the transformation, while traditional industries and relatively backward regions to carry out the transformation process is slower. In different industries, there will be different levels of technology diffusion due to differences in information dissemination and other factors. Different levels of technology diffusion will directly lead to differences in development. At present, the integration of China's digital transformation and various industries shows a reverse development trend of 'three, two, one'. The tertiary industry is developing more rapidly, while the primary and secondary industries are lagging behind; at the same time, the degree of digital transformation in East and Central China is significantly higher than that in the western region. This difference in the speed of digitalisation diffusion across regions and industries will lead to significant differences in total factor productivity and income levels across regions and industries (Schiff & Wang, 2006)[12]. Due to the low level of digital transformation, a digital divide has been created between late-developing industries and regions and early-developing industries and regions, and the labour force is less effective in sharing the digital dividend, making it difficult to achieve leapfrog growth in their income through the accumulation of digital wealth. On the other hand, as a result of enjoying the digital development dividend, the labour force's income has been able to grow geometrically, ultimately leading to a gradual widening of the income gap between the two groups of people.

2.3 The freeing qualities of the digital age exacerbate the oppression of labour by capital

In an era of active digital transformation in all industries, the exploitation of labour by capital has evolved more intensely compared to the industrial era. With the freedom of working time and place brought about by digitalisation, capital has been able to further absorb the fragmented time of the labour force (Wen Xiaonian and Ouyang Bin, 2024[13]). There is a soft deprivation of the eight-hour workday, leave, and various benefits gained in the otherwise proletarian struggle. There is not only explicit exploitation of others, but also invisible exploitation of the self. Especially in the case of platform jobs and informal jobs built on the back of digital transformation, the establishment of a pay system that is closely related to income has led to the spontaneous extension of working hours to their physical and psychological limits in order to obtain a higher level of income and to escape from the risk of unemployment. In this situation, digitalisation has reconfigured the order of the mode of production and lifestyle through the logic of capital proliferation, achieving a shift from 'factory socialisation' to 'social factoryisation' through digital production (Yan Kunru and Li Yi, 2023[14]). As a result, although the labour force received higher total remuneration, the income per unit of time of the labour force actually declined, and capital was able to maximize the capture of all the surplus value of the labour force, achieving a substantial increase in capital income, resulting in a further deterioration of income distribution.

3.Digital transformation of industry Advancement policies to improve income distribution to achieve common prosperity

3.1 Governments should strongly encourage and promote digital transformation across industries

3.1.1 Strengthening of digitisation-related policies and regulations

First, top-level design should be strengthened, the spirit of the 20th Party Congress should be fully implemented, and guiding documents on the integration and development of the digital economy and the real economy should be issued. The

digital transformation of industries should be firmly regarded as a new driving force for achieving common prosperity. In encouraging industries to undergo digital transformation, governments at all levels should also actively formulate matching digitalisation policies and strive to promote their implementation. On the one hand, it is necessary to formulate supportive policies, such as financial support policies and tax incentives, to encourage backward enterprises to carry out digital transformation from the financial aspect; on the other hand, it is necessary to encourage advanced enterprises to continue to be the first to try, and to deeply explore the application mode of digital elements to release the digital dividend, so as to drive the backward enterprises with advanced enterprises, and ultimately realise the promotion of the digital transformation of the whole industry.

Secondly, it is necessary to strengthen digital security legislation, develop a monitoring and early warning mechanism, and clarify the attribution of property rights while rationally regulating the market. Large enterprises in the industry often exist in the natural monopoly attributes, especially in the data era, the phenomenon of the law of two or eight is getting stronger. A small number of enterprises occupy the vast majority of resources and markets, which can easily lead to the formation of economies of scale, but also easily lead to monopoly, price discrimination and other detrimental to the rights and interests of upstream and downstream enterprises and consumers. In order to overcome this dilemma, government regulation is needed to protect the legitimate rights and interests of individuals and organisations, as well as information security. Specifically, including, strengthen for digital enterprise data collection and digital mining process of transparency and rationality of supervision, trying to achieve a balance between technological innovation and reasonable competition; the establishment of a sound digital security management system, timely and effective treatment of data security crisis; strengthen for data security risk monitoring, data security without dead angle, etc., to create a safe environment for the development of digital development.

Thirdly, the government should take the lead in improving the industrial digitisation index system, with the indicators as the starting point for the introduction of subsequent policies and development cornerstone. An important reason for the current low level of industrial digitisation is the lack of a standardised industrial digitisation indicator system to measure its level. Therefore, the government can designate a unified and standardised indicator system to measure the digitisation level of enterprises in various industries and create a good atmosphere for digital transformation.

Fourth, through supportive policies to guide digital consumption, to consumption reverse to promote digital transformation. Take the lead in promoting the combination of digital technology and public facilities by learning from Japan's experience in building a 'super-smart society', encouraging consumers to use digital products and services, prompting consumers to discover the convenience of digitisation, and establishing a digital lifestyle for consumers, so as to reverse the changes in consumers' lifestyles, reflections on their thinking, and consumption patterns. industries to complete digital transformation.

Fifth, accelerating the establishment of a digital government and leading digital development through the establishment of a digital government. Government departments will take the lead in taking the lead in the digital transformation of business modules, actively building digital organs, accelerating the promotion of open government, exploring a regulatory model based on digital technology, achieving an accurate match between the needs of society and enterprises, creating more multi-level service scenarios, achieving a rational allocation of resources and further releasing the digital dividend.

3.1.2 Develop a distribution system that matches the digitisation of the industry

First of all, we should always adhere to the principle of striking a balance between efficiency and fairness, and improve the mechanism of market-determined remuneration for various factors of production. In particular, it is necessary to increase the remuneration of technology and knowledge factors. Enterprises should provide more incentives to labourers who make more contributions at the technical level. Improve the incentive mechanism for the fruits of skills, and sound the mechanism for sharing the benefits of skills, so as to achieve the sharing of the dividends of digitisation.

Second, develop a more fair and reasonable secondary distribution system. Due to the natural spatial mobility advantage of digital elements, the real economy in the process of digitisation will appear in the separation of income and geospatial space, while the existence of digital products and digital services also exacerbates the ambiguity of the main body of taxation, and impacts on the original tax system. Therefore, a fairer and more reasonable tax system, such as a digital adjustment tax,

should be established to overcome the challenges posed by industrial digitisation to the redistribution system. At the same time, it is necessary to improve basic public services, especially the unemployment assistance mechanism, so as to minimize the impact that low-skilled labour may suffer in the process of industrial digital transformation.

Third, the third distribution mechanism should play an important role. Enterprises should enhance their own sense of social responsibility, and should encourage enterprises with the ability and willingness to actively participate in charitable and public welfare undertakings, and make use of the advantages of the Internet and other digital industries to carry out mutual assistance and mutual aid activities in education, science and technology, and livelihood construction. To help labourers who lack the means to accumulate their own human capital to obtain the enhancement of human capital, so as to participate in production and life in a more advantageous role of workers, in order to increase the proportion of labour income that they can ultimately obtain. At the same time, certain tax incentives should be given to enterprises that participate in charitable activities, in order to create a social atmosphere conducive to the development of charitable endeavours.

3.1.3 Improvement of digital talent training mechanism

First, skills training should be carried out in cooperation with research institutes, universities and enterprises. In the process of industrial digitisation, skilled labour will be able to gain more from their own skills, so talent training mechanisms should be improved and skills training for the labour force should be strengthened. Provide inclusive, society-wide online and offline labour skills training courses to teach skills that meet the needs of enterprises that have completed digital transformation, lower the threshold for learning digital technology, and upgrade unskilled and low-skilled labour to high-skilled labour, so that the benefits of digitisation benefit the labour force more. Within the enterprise to encourage enterprises to carry out labour force digital skills training, the development of financial subsidy policies and talent preferential policies to encourage enterprises to actively complete the staff digital skills training, in particular, we should pay attention to the combination of digital skills and practical skills of cross-composite personnel training.

Secondly, encourage colleges and universities to open special specialities for training digital talents and set up special colleges. Through the adjustment of university majors and colleges, we should convey the message of the importance of digital talents to the society. Strengthen the construction of postdoctoral research mobile stations and workstations in the digital field, and increase the training of postdoctoral talents. Improve the labour supply of highly skilled digital talents on the whole.

Third, build a bridge between enterprises and colleges and universities for talent delivery. On the one hand, colleges and universities can cultivate highly skilled digital talents according to the needs of enterprises, and deliver talents to enterprises in an order form. On the other hand, it will encourage enterprises to combine the advanced digital technology of universities to carry out digital transformation and create more jobs that can absorb digital talents.

3.1.4 Accelerating the digital transformation process of traditional industries

Firstly, in the process of deepening the digital transformation of industries, traditional industries will inevitably become a major bottleneck affecting the quality and effectiveness of the transformation. Part of the traditional industries are bound by past experience and lack of capital, technology and talent support, and are prone to the problems of not wanting to transform, not daring to transform and not being able to transform, which makes the pace of transformation lag far behind that of some high-tech industries. Therefore, it is necessary to strengthen and enhance the traditional industries, support the organisational reengineering and process restructuring of traditional industries, refer to the experience of the advanced industries in digital transformation, make data as a new productive force to participate in the whole life cycle of industrial production and operation, and realise the in-depth fusion of digital elements and the real economy. At the same time, more financial support will be given to the digitalisation of traditional industries to alleviate the financial constraints faced at the innovation stage.

Secondly, the first-developed enterprises in the industry should drive the later-developed enterprises, encourage mutual assistance and learn from advanced experiences. The over-expansion of leading enterprises should be closely supervised to prevent the emergence of monopoly and other unfair competition behaviours, which will lead to further widening of the intra-industry gap. On the issue of inter-industry gap, enterprises upstream and downstream of the industrial chain should be encouraged to learn from each other, giving full play to the vertical spillover effect of technology, and ultimately achieving

common progress. At the same time, considering the different qualities of each industry, when traditional industries learn from the experience of emerging industries, they need to fully combine with their own conditions to achieve progress according to local conditions.

Thirdly, encourage enterprises to disclose information. Enterprises should be encouraged to share and report their successful experiences, and the mode of sharing successful experiences should be fully integrated with digital channels, so as to open up channels for post-development enterprises to learn from their experiences.

3.2 Enterprises should complete the transition according to local conditions

3.2.1 Strong determination to complete industrial digitisation

First, companies should have a clear strategic plan for digital transformation. A clear and well-defined strategic plan requires that enterprises should have an in-depth understanding of the underlying logic of digitalisation. Digital transformation is not simply about responding to policies or taking advantage of policy benefits, nor is it about simply copying a large number of companies that are going digital. Rather, it should be done because of a realisation of the significance of completing digital transformation for their own development. Only by truly understanding the significance of digital transformation, enterprises will be able to generate endogenous motivation, more proactive transformation, to reduce the transformation of the latter part of the problem of insufficient power.

Secondly, enterprises should have an accurate understanding of digital transformation, develop a clear implementation guide, and have a clear understanding of the tasks and goals to be accomplished for digital transformation. An important reason for the overall low level of industrial digitisation is that many enterprises carry out digital transformation on the surface, although a series of reforms, but with the actual business deviation, and can not solve the real difficulties and pain points. The important reason behind this phenomenon is that enterprises do not have a clear understanding of the tasks and goals to be accomplished by digital transformation, and are not able to accurately determine whether digital transformation has been carried out effectively. This ultimately leads to incomplete digital transformation, affecting the overall industrial digitalisation process.

Thirdly, enterprises need to choose their own transformation methods according to their own characteristics. In the actual transformation process, enterprise scale, enterprise industry, corporate culture and other factors will have an impact on the degree of enterprise acceptance of digitalisation, the need to combine with the degree of digitalisation is also different. The appropriate transformation method can strengthen the enterprise's determination to complete the digitalisation, so each enterprise should choose the transformation method and means according to its own characteristics to ensure the smooth progress of digital transformation.

3.2.2 Optimising internal income distribution patterns

In the process of digital transformation of industries, in order to achieve the sharing of digital dividends with a wide range of labour, in addition to the introduction of a series of reasonable distribution policies by the government in line with digitisation, enterprises should also carry out corresponding reforms of their internal distribution structure. Enterprises should understand that employees are an important part of the enterprise, and if the benefits of digital transformation are not shared with the labour force, it cannot be called a fair and reasonable digital transformation.

First, attention should be paid to formulating a fair and reasonable compensation system, adjusting the salary structure, allowing more employees to enjoy the dividends of digital transformation, and narrowing the income gap between grassroots employees and top managers. Digital enterprises should pay more attention to the flattening of the hierarchical structure, treat all classes equally, reasonably balance the proportion of salary and income distribution among leaders, middle-level and grass-roots employees, and increase the tilt towards front-line and grass-roots employees.

Secondly, in addition to the basic salary, enterprises should also clarify the attribution of business income and set up performance reward mechanism and share reward mechanism. In the process of digital transformation, the profit model of the enterprise has been transformed, and short videos, live streaming and other forms have become important business models. Under the digital business model, flexible wages and flexible work systems can be implemented to frontline and grassroots employees, and more flexible employment contracts can be used to build a more flexible employment relationship. Referring

to the salary model of live broadcasters and couriers of various platform enterprises, the total salary should include basic salary plus performance pay, allowing employees to complete their work in a more free mode, without limiting the time and place, and earning more for more work, so that grass-roots employees will have the opportunity to obtain higher earnings.

Third, establish a digital employee benefits system. Digital transformation should not only be applied to the production and operation activities of the enterprise, but also be combined with the employee welfare system. Provide flexible employee benefits, build digital welfare scenarios, set up a digital welfare platform, allow employees to self-select the period to redeem benefits, choose the category of benefits, customise the delivery address, etc., to meet all kinds of needs of the employees from multiple angles and in an all-round way, and to achieve a high degree of matching between the issuance of welfare benefits and the employees' sense of psychological satisfaction.

3.2.3 Establishment of a sound digital talent development system

Firstly, it is necessary to overcome the ideological barriers of employees, so that they can actively and proactively learn digital skills. In the actual process of digital transformation in various industries, the most difficult thing is not the updating of technology, but the transformation of thinking. The most important change in thinking is the change in the thinking of the implementer, that is, the change in the thinking of the employees. Therefore, enterprises should carry out timely corporate culture change, create a clear digital vision in the enterprise, create a more free and open digital communication channels, proactive communication and exchange with employees, the formation of long-term, continuous, subtle influence on the employees within the enterprise, prompting their spontaneous digital learning.

Secondly, to strengthen the professional skills training of employees, both theoretical and practical training is needed to effectively improve the digital skills of employees. In industrial transformation, a large number of talents are needed to provide support, but the employment of digital talents can not only rely on external recruitment, but also actively carry out internal training, to enhance the original staff to meet the needs of digital talents, to reduce the occurrence of pay cuts or even unemployment due to skills mismatch. Digital talents include digital technology talents, digital management talents, digital market talents and digital operation talents. At the same time the need to combine digital skills with the agricultural, industrial and service industry skills required by the industry did not form a digital composite skills to match the needs of enterprises.

Thirdly, special funds for talent development should be set up in enterprises to match the government's supportive policies for talent development. For digital talent special funds should be set up special accounts, according to the needs of reasonable planning budget, to ensure the rationality of the allocation and use of funds. At the same time to carry out special management and supervision, in order to avoid the funds are diverted to other purposes.

3.3 The labour force should be actively involved in the digital transformation of industry

In the process of industrial transformation to promote the increase in the proportion of labour income, in addition to the actions of the government and enterprises to accelerate the increase in the proportion of labour income, the actions of the labour force itself also play a particularly important role. Only through the joint efforts of the labour force, the government and enterprises to form a trinity pattern can the series of policies designated by the government and enterprises be put into practice, giving more play to the employment effect rather than the substitution effect of the digital transformation, and realizing the dividends of the industrial digital transformation to be shared by multiple parties. Therefore, in the process of continuing to encourage the promotion of industrial digital transformation in the future, the labour force needs to start from the following perspectives.

3.3.1 Timely identification of changes in society's demand for labour

First, workers should understand the current development situation. They should understand the current development and demand of various industries under the general trend of digital transformation, and keep pace with the development of the industry so as to better cope with the challenges. Specifically, we should actively conduct research on the development of the industry, in-depth understanding of the development trend and market demand of our own industry and related industries; we should actively conduct market research to collect market information, under the digital development situation, some industries can develop more rapidly, while some industries gradually shrink or even disappear, so we need to fully understand the industries with better development prospects driven by digital transformation; we should actively conduct a survey on the

demand for different jobs in the industry. Research on the demand, future development prospects and salary levels of different positions in the industry.

Second, actively accept digital transformation. Digital transformation is an irreversible trend and an important path of change. Therefore, for the labour force, the right choice is to set the right mindset and actively respond to the wave of digital development so that they can gain greater benefits. Not only for the younger workforce, but also for the older workforce, it is important not to reject change and remain stuck in a rut. Even at the end of their careers, they should always maintain a positive mindset, embrace change, take the initiative to adapt and respond to changes in society's demands on the workforce, and embrace a learning and growth mindset. Push yourself to become an important part of the industrial digitisation process that plays a contributing role.

Thirdly, make a career development plan for yourself that is more in line with the development of the market Make career planning decisions based on your own needs that are most in line with your own development. With the changing needs of society, the labour force should flexibly adjust their career planning and development paths in light of the development situation, and constantly look for opportunities to adapt to the current and future job market needs. In the era of industrial digitalisation, the career planning of the labour force should also change accordingly. It is important to correctly understand the urgency of re-employment of the unemployed during the period of social change as well as the transformation of the career track, and to actively engage in the emerging spin-off industries of the digital industry in order to realise a broader space for career development.

3.3.2 Actively pursue relevant digital skills

Firstly, the direction of skills learning should be clear. Digital skills are a broad concept that covers a wide range of areas, so workers should focus on specific areas in their learning process. Workers should first understand digital skills, and then start from their own interests and career development plans, and choose the direction that best fits with their own development for targeted learning. For example, they should choose a more specialised direction such as data analysis, programming, artificial intelligence and so on.

Second, in the process of learning digital skills, it is necessary to combine online and offline methods. On the one hand, workers should actively participate in all kinds of digital skills training courses, workshops and seminars organised by the government and enterprises to systematically learn relevant knowledge and skills. On the other hand, workers should also actively engage in self-learning. Make use of various online learning platforms, such as Coursera, edX, Udemy, etc., to learn digital skills-related courses. As well as actively browsing technical community websites, such as GitHub, Stack Overflow, etc., to participate in the talk and accumulate experience. In addition, it should also be appropriate to participate in digital project practice activities, through practical operation to master the application of the ability to enhance the level of skills.

Third, combine digital skills with work practice in time. In the era of industrial digital transformation, simple and repetitive labour-intensive work is gradually replaced by the inevitable process, but in fact, the in-depth development of industrial digitalization not only may produce substitution for low-skilled labour, this substitution effect may also spread to the middle-skilled labour, so only completing the initial learning of digital skills can not guarantee the stable improvement of their own labour remuneration.

In addition to the improvement of digital theoretical skills level, human-computer coupling is the most important thing in the digital era, the key lies in breaking the boundary between human and machine, and realising the interaction between human and computer. Therefore, workers should actively adapt to the general trend of human-machine coupling in the digital transformation of industries, and actively adapt to the shift in labour demand under the trend of digital transformation. Through their own efforts to make themselves stand out in the future digital work scene, so that they can enjoy more dividends in the process of industrial digital transformation and get a pay rise.

3.3.3 Acceptance of more diversified forms of employment

First, the labour force of traditional industries should migrate to emerging industries under reasonable circumstances. Emerging industries mainly refer to industries such as big data, cloud computing, artificial intelligence and the platform economy, which have been born and gradually improved with the deepening of digital transformation. According to the

National Economic Industry Classification, they mainly belong to the information transmission, software and information technology service industry, scientific research and technology service industry and other industries. These industries are more closely integrated with digitalisation, and the depth of industrial digital transformation is deeper, and they can also benefit from digital transformation earlier. For labourers originally employed in traditional industries such as industry and agriculture, if they can shift to new industries that are more closely integrated with digitalisation in a timely manner, it will be easier for them to strive for higher labour remuneration.

Secondly, the range of choices in the employment process will be expanded, and the work will be carried out more flexibly. In the process of digital transformation of industries, digital nomads are a newly derived form of employment. That is, they work remotely online through modern information technology, such as self-media and live banding. This type of work is similar in nature to that of traditional self-employment, but it is able to get rid of the restrictions of time and geographical location, and is more flexible and elastic. For the labour force, this new type of work should be actively accepted. In the digital age, stable jobs should no longer be the only pursuit, and there should be no discrimination against different jobs, but rather, all types of jobs should be treated equally. Only by actively accepting all kinds of new jobs in the digital age can we enhance the competitiveness of labour in the competition for capital and achieve an increase in labour income relative to capital income.

Thirdly, accepting multi-threaded career development and actively developing side jobs while getting paid for the main job in order to get more labour remuneration. The work pattern in the process of industrial digital transformation has gradually shifted from the original 1v1 employment model to many-to-many, i.e., multiple employment model. Odd-job economy is a more typical manifestation of this, such as KOLs, online dating cars, takeaway delivery workers, and so on. This work model allows workers to contract labour relationships with multiple employers at the same time, providing more work opportunities for the originally disadvantaged labour groups, as well as a higher level of profit-sharing with the capital side, enabling them to receive higher labour remuneration. The labour force should therefore take advantage of the time- and space-independent convenience of the digital transformation to build more side platforms for themselves in order to seek higher income margins.

Funding

no

Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

Reference

[1] Li, X., & Zhong, C. (2024). The mechanism and policy of digital economy affecting common prosperity. Academic Journal of Zhongzhou, (03), 48–54.

[2] Chen, M., & Zhou, Y. (2021). The effects of digitalization on labor cost of enterprises. Chinese Journal of Population Science, (04), 45–60, 127.

[3] Wang, Y., & Dong, W. (2020). How the rise of robots has affected China's labor market: Evidence from China's listed manufacturing firms. Economic Research Journal, 55(10), 159–175.

[4] Yu, D., & Chen, R. (2020). Capital deepening, factor income share and total factor productivity: A perspective from biased technical change. Journal of Shandong University (Philosophy and Social Sciences), 242(05), 107–117. https://doi.org/10.19836/j.cnki.37-1100/c.2020.05.011

[5] Duan, W., Shu, X., Wu, F., & Liu, T. (2023). Intangible capital, capital-skill complementarity and skill premium. Economic Research Journal, 58(03), 116–134.

[6] Yuan, D., Zhou, L., & Yuan, L. (2021). The impact of technological innovation mode shift on the employment structure of labour force: An analysis based on the data of listed manufacturing companies. Chinese Journal of Population Science, 207(06), 81–95, 128.

[7] Jiao, Y., & Bai, P. (2021). The research on influencing factors of three major industries' labor income share: A discussion on the role of digital economy under post-industrialization era. Inquiry into Economic Issues, 471(10), 84–99.

[8] Qiu, J., Benfica, R., & Yu, J. (2023). Connotation characteristics, driving mechanism and realization path of digital trans-

formation and upgrading of rural industries in China. Journal of Northwest A&F University (Social Science Edition), 23(05), 1–14. http://kns.cnki.net/kcms/detail/61.1376.C.20230407.1027.002.html

[9] Zhang, T., Chen, L., & Chen, T. (2013). Industry barriers to entry, labour migration and structural change. World Economic Papers, 215(04), 20–36.

[10] Wen, Y., & Lu, X. (2018). The determination mechanism of changes in China's labor income share: Based on the double perspectives of market competition and institutional quality. Economic Research Journal, 53(09), 83–98.

[11] Li, M., & Cao, Y. (2024). On the logical path, realistic dilemmas, and practical approaches of digital economy promoting common prosperity. Academic Journal of Zhongzhou, (01), 37–44.

[12] Schiff, M., & Wang, Y. (2006). North-South and South-South trade-related technology diffusion: An industry-level analysis of direct and indirect effects. Canadian Journal of Economics / Revue Canadienne d'économique, 39(3), 831–844. https://doi.org/10.1111/j.1540-5982.2006.00372.x

[13] Wen, X., & Ouyang, B. (2025). A logical analysis of the temporal exploitation of digital capitalism. Journal of China University of Mining & Technology (Social Sciences), 27(01), 1–18. http://kns.cnki.net/kcms/detail/32.1593.C.20240605.1044.002.html

[14] Yan, K., & Li, L. (2023). The multiplication logic of digital capitalism and its criticism. Journal of Huazhong University of Science and Technology (Social Science Edition), 37(05), 134–140. https://doi.org/10.19648/j.cnki.jhustss1980.2023.05.13