

Abstracts

Information Technology and Human Resource Management: With a Focus on the Trends in Japan since the 2000s

Shinichi Ogawa (Yokohama National University)

The utilization of information technology (IT) has been common among firms and employees since the 2000s. This paper outlines the influence of electronic human resource management (e-HRM) on how employees work, and the policies that firms adopt for utilization of IT by employees. The structure of this paper is as follows. First, IT is described as media and its features are listed. Second, utilization of IT by firms since the 2000s is outlined. Third, the trends of e-HRM are presented, focusing on the realms of recruit management, vocational training, and telecommuting. The utilization of e-HRM varies according to social and economic attributes, such as size of firms and their industry, and sex, age and occupation of individuals. Fourth, as IT is becoming more common and better developed, the needs for information security are increasing. It is certain that firms implement actions for information security not only from technological approaches, but also from organizational ones such as providing employees with training and deciding policies and rules. However, some of the firms have difficulties in implementing information security. It is important that when we do research into the influence of IT as media on workplaces and how people work, we are careful in avoiding technological determinism.

Possible Impacts of Information and Communication Technology on Wages

Toshie Ikenaga (Cabinet Office, Government of Japan)

This paper aims to explore possible impacts of information and communication technology (ICT) on wages. There is widespread evidence for the existence of job polarization in the United States, Europe and Japan, where ICT seems to have replaced mid-ranked jobs involving more routine tasks than nonroutine cognitive ones. While the United States has experienced both job and wage polarization; the growth in wages would be highest for high-ranked jobs, followed by low-ranked jobs, and lowest for middle-ranked jobs, there is little evidence for wage polarization in other countries. In Japan, between 2005 and 2014 the share of the lowest paid occupations has substantially expanded, followed by relatively higher paid occupations rather than occupations with the medium wage level. As to the relationship between the introduction of ICT and wages, industrial data between 2001 and 2010 in Japan shows that industries with high level of ICT capital stock or investment per workers tend to have high wage levels. There is little evidence, however, that the increase in ICT capital stock or investment would lead to higher wage growth. Growth of ICT capital or investment appears to be higher in industries with lower initial wage level. Non-ICT capital stock does not have significant positive effects on wages.

The Effects of Sophisticated ICT on Work-family Life

Yuka Sakamoto (Naruto University of Education)

One of the features of sophisticated ICT tools is greater alleviation of time and location restraints in communications. Although positive effects of ICT tools for improving work-family balance have been reported, much of the ICT literature stresses negative effects on work-family conflict (WFC) through increased extra work. This study examines the influence of using ICT tools on work-family life through a literature review and analysis using the data from a sample of 300 male and female workers with children in the Tokyo, Osaka and Nagoya metropolitan areas via a web questionnaire survey. Multi-group analysis of covariance structure modeling showed that the degree of use of ICT tools was not associated with border permeability. Results indicated that WFC was increased by greater permeability of borders, and tended to decrease by more frequent border-crossing communication with family. However, the degree of use of recent ICT did not show a strong effect on increases in permeability or communication frequency. As a whole, the more frequent use of ICT tools and frequent work at home increased WFC.

Smart Workplace and Worker Privacy

Kiyoshi Takechi (University of Toyama)

This article explores the legal ramifications of the use of RFID (Radio Frequency Identification), GPS (Global Positioning System) and biometrics by employers to monitor and track workers. It discusses privacy risks regarding the use of these technologies, and analyzes current law regulating the use of them.

Requirements and Effects of the Obligations of Employees to Maintain Secrecy and Avoid Competition

Etsushi Hosotani (Kagawa University)

This article aims to clear up primarily the requirements and effects of the obligation to maintain secrecy and avoid competition. Employees must faithfully keep the obligation to maintain secrecy and also to avoid competition during their employment, but such obligations end after employment. The obligation to avoid competition after employment restricts the freedom of choice of employment strongly and therefore requires clear individual contracts in principle. Contracts forbidding competition after employment must contain both the required and minimal content. Employers should pay adequate compensation as well. Employers should first claim damages as an effect of the breach of the obligation to avoid competition, when employees compete after employment. Employers should not reduce money which is paid for retirement because such money is not paid to forbid competition after employment but for the work done during employment. Penalty for contract breach breaks Article 16 of the Labor Standards Law because the penalty prevents the search for a new job and gives employee the liability for heavy damages. Because the lifetime employment system is gradually falling by the wayside in Japan and thus the freedom of choice of employment is more important, the obligation to avoid competition on the one hand should be restricted strongly, on the other hand employers should protect their company secrets by the recently amended Unfair Competition Prevention Law or confidentiality contracts.

Reconsideration of Becker's Human Capital Theory in the Age of ICT/AI Revolution: from the Perspective of Self-evolvability

Hiroyuki Chuma (Seijo University)

In the current dense network society induced by the unprecedented ICT/AI-driven innovations, the complication of goods and services has been accelerated *pari passu* with the high-clock speed of markets and technologies. Resultingly, the so-called "multi-level competition" tends to frequently occur within a short period in one or two more abstract market domains than the existing ones. The purpose of this paper is to propose the theoretical framework for reconstructing the existing human capital theory that could be workable in the age of multi-level competition. More concretely, I try to examine how the firm-specific human capital characteristic of Japanese employment practices is undergoing a vast transformation and what kinds of structural changes are happening behind the scene. As a matter of fact, the "expiration date" of the specific human capital provided by firms/organizations as going concerns is dramatically shortened, so that the risk of pursuing a professional career within a specific firm/organization is rapidly increasing. So, irrespective of individuals or firms/organizations, it becomes really necessary to invest in the highly self-evolvable human capital, i.e., those with compatibility, reusability, expandability, and interoperability beyond the boundaries of firms/organizations.

What Role Should the Labor Law Play in a Highly Technological Society?

Shinya Ouchi (Kobe University)

In actual fact labor organizations and work styles are changing as Information Technology (IT) rapidly advances. Traditional labor laws, the basic concept of which was to protect individual subordinated workers, have gradually become obsolete. IT has lessened restrictions on workplaces and the working time of workers, and consequently the degree of their personal subordination is diminishing. At the same time, however, IT

is bringing about the restructuring of jobs and robbing skilled workers of employment. In order to cope with such a situation, the objective of the labor law should be changed, from the protection of the subordinated workers into raising the employability and adaptability of each worker. To do this, from a legal viewpoint, it is necessary to make the right to a career become a new concept of the labor law. This right obliges the government to obtain and make public correct information on what kind of impact technical developments such as IT or robotics will bring in the workplace, and to make use of such information in job guidance, especially for youth.