

Does the “Local Universe” Impact on Representations, Levels of Utilisation of an HR Intranet by the Middle Management User

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Abstract. The e-HR dynamic implies the development and the integration of an HR intranet in order to achieve a better distribution of messages and to optimise the HR services delivered to HR clients, especially to the middle management. This kind of ICT investment is very expensive. The question about its benefits is quickly asked by the Board Management. That is why the assessment of the HR intranet through middle management’s positions and uses is necessary. We present in this paper the case of a HR department of a major Aeronautical and Space company, which has developed an HR intranet. From 53 interviews of middle managers, a typology of actors emerges : the “super technician”, the “assembly line boss”, the “industrial artisan”, the “free electron” and the “hybrid”. Each of them got specific position and use of this tool. This confirms our hypothesis on the effect of what we call the local universe on practices of the HR intranet tool.

1 Introduction

In response to a more competitive environment and stronger requirements from the customers and the shareholders in terms of profitability, reduction of the structural costs, the Human Resources Department has to convince the Board of Management of its capacities of innovation, adaptability and flexibility. According to literature the e-HR, is a global functioning mode of a company around a significant number of HR processes which leads to the sharing of HR information and its treatment by direct and free access of the employees, the Management and the HR function and to the setting-up of a new HR organisation in order to optimise the customer relationship. Achieving a better distribution of messages and optimising the HR service are the first objectives. The middle management is one of the privileged customers to satisfy, because its own role within the company also changes. The improvement of HR communication is generally accompanied by the development and the integration of an HR intranet, considered as a technical support with which the required performances can be obtained.

This kind of HR strategy involves strong investments. So, the question of relevance and the efficacy of this on-line service according to the expected goals is quickly asked by the Board of Management.

Enrolling in these preoccupations, the Human Resources direction of a major Aeronautical and Space company, which we shall name Aero, asks us to realize a first survey about the perception and the use of the HR intranet, in order to evaluate perceptions and uses of the middle management.

Our communication will articulate in two parts. Firstly, we will briefly present literature about the link between e-HR concept and the development of HR intranet tools. After explaining our research question and our model of analysis, we will present and describe results of our investigation.

2 A Research in Progress

The evolution of the HR function has been announced in specialised magazines since the end of the 1990s. Some researchers have made aware HR professionals of their difficult position in the company and of the necessity to transform the function [14]. Thus, the HR department must show its added business value. To do so, certain guidelines must be followed: become more service-oriented, more focused on its performance, being aware of HR commitment and contribution towards the company performance [8,14,15]. In this context, the support of Information Communication Technology (ICT) is considered to be essential – which leads us to the e-HR dynamic.

2.1 The e-HR Dynamic Supported by the Development and the Integration of a HR Intranet as a Basic Element of a New Model of Functioning

Regarding the definition of e-HR, we have been influenced by the thinking of Huub Rüel and his colleagues. According to them, the e-component is not only the symbol of a technical advance, but the imprint of a deeper transformation of the HR position within the company: a new “*way of thinking about interaction, service-provision, and communication*” in order to “*redefine HR profession*” [13].

The use of ICT would have an impact on the management of the HR process and would transform the relation between the HR department and its environment. A model of functioning based on e-HR stands for the access to and a treatment of the HR information by all actors of the company, not only the HR staff. That is the difference between the definition of ISHR and e-HRM [13]. Thus, this system would provide employees with the responsibility to manage their own personal data and their own professional development, whereas the manager, without an intermediary, would completely intervene in the HR process. [3,4,7,13]. That is the aggregation of new actors in the HR area.

In the literature, the HR intranet is presented at the same time as a tool for supporting the middle management and for improving HR performance [10]. The main question is to know why these two actors would accept to change or not in connection with the development of an HR intranet.

For an HR actor, anxious to show his added value to the business, the intranet tool can become a material support on which a number of new HR applications can be found. These services would provide the HR function with the opportunity to change.

For the middle management, things are different because it is considered a key actor of the company's transformations. Its position is between the Board of Management and the staff, and it is this position, which makes it to manage concretely evolutions of identities, of professions and larger work transformations. It means that the middle management "*becomes the initiator and the founder*" of ICT [6]. This is why HR consider him as their first customer to satisfy.

According to this vision, the accessibility of new HR services would give the opportunity to the middle management to explore new forms of organisation and to become more independent [3,6].

To explain the link between the e-HR dynamic and the development of HR intranet , we refer to the two work. In their article, French researchers, Laval, Guilloux and [6] explain the Intranet potentialities as the main instrument for the HR department to improve its performance. They present six applications¹ in relation with three stages of HR intranet development. The first stage corresponds to the "**Intranet Corporate**", which is mainly focused on internal communications, with a special site for HR information (HR processes, legal elements). It is dedicated to all employees of the company. The second stage is called "**Intranet RH Généraliste**"², of which the originality is e-administration. Using the workflow technology, HR offers to employees some on-line automated administrative services (leaves, bills, certificates ...). Others sections are: more information about mobility management; an access to training services; specific applications to support new forms of network organisation. This intranet is currently managed by the HR function. Such on-line administrative services lead the HR intranet manager to create specific interfaces for each actor (employees, managers, HR staff, and the Board of Management). It corresponds to an **HR Self-Service** approach. The "**Intranet Spécialisé**"³ is the most accomplished stage. Containing the previous level, it has been further enriched by new applications: e-learning, e-competence and knowledge management. We are in a transversal dynamics, of which one of the main objectives is to capitalise the company's knowledge.

Usually, the main authors who try to give a definition of e-HR concept conclude to three important impacts of ICT on HR Management [8,7,13,15,6]. The first one is an *operational* impact with the development of ISHR. *It concerns the basic HR activities in the administrative area* (new data base ; payroll ; personnel data administration...). The second impact is *relational*. It concerns more advanced HRM activities. It is on line HR tools, that support basic business processes (recruiting, training, performance, management and appraisal, rewards). The last impact is *transformational* with the concept of virtual HR function. It concerns activities with strategic character such as *organisational change processes, strategic re-orientation, strategic competence management and strategic knowledge management* [13].

Beyond the abstract and normative models, the concrete example of these HR transformations is scarce in the academic literature. That leads us to take into account three approaches at the same time : technical approach (evolution of the tool) ;

¹ Six applications : HR information, e-administrative ; e-mobilité ; e-recruitment ; e-learning ; e-competence and applications for knowledge management

² Non-specialised HR Intranet.

³ Specialised Intranet.

strategical and organizational approach (Board Management' s expectations; evolution of means and structure...) and individual approach (the stakes perceived by of the different actors in using the on line tools).

2.2 Research Question

One of fundamental research questions that our Phd work aims at answering is to understand why in a specific population as the middle management of a big company, differences of representations, utilisations and expectations of a general HR intranet can be noticed. The question of the relevance of a HR strategy based on e-HR dynamics is implicitly asked. Our main assumption on this point is that the differences of representations, utilisations and expectations of a HR intranet can be explained by the concept of “*local universe*”.

We are located in a theoretical framework where the limited rationality of agents [9] implies the taking into account of the universe that characterizes them, notably from the professional and organizational measurements [1].

To summarize this idea, we use the *local universe* concept, associating professional dimension and organizational structure.

The **professional dimension notion** sends back to the individual professional capacities, but also to policies of the actor's department. According to the nature of his activity, his objectives...the individual is not going to use the technological tool in the same way.

The **organizational structure notion** sends back to reports between the different agents, to the hierarchical relations. We will use here categories proposed by [11].

We add that this “power of user” [12] could be different according to the local universe in which the user is. In the diagram below, we try to summarize our ideas.

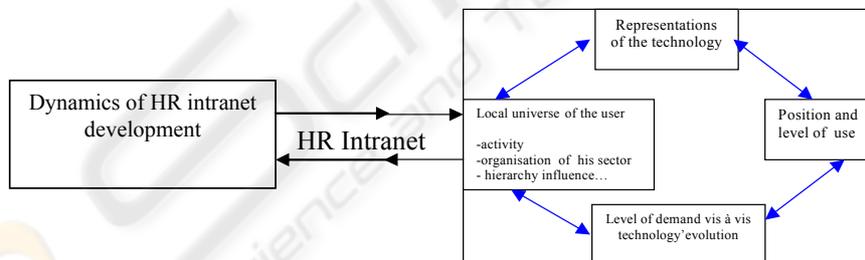


Fig 1. Dynamics between Users and Conceptors.

We start our research by leading a survey in order to a better understanding of the users of the HR intranet. In order to define a typology of users, we have been influenced by the work of Iribarne & Tchobanian in a big french company France [2]. Authors propose a typology of users : the reticent; the utilitarian; the innovator; the strategist. We have added to this typology the neutral user.

Type of middle management speech in relation to HR tools	Level of use of HR tools	Type of manager position
"I'm afraid of losing some part of my work and a dehumanization of social relations".	Rare or no use	Reticent
"the tool seems interesting. But it doesn't take really part of my working environment".	Punctual use	Neutral
"the tool is functional and useful. However, I'm not satisfied, I expect something better from the system"	Regular use	Utilitarian
"the tool contributes to ameliorate my work and makes me find new solutions and feel more committed and self-sufficient".	Daily use	Innovator
"the tool contributes to give me the opportunity to work differently in a more efficient way and in the same time to serve my own interests".	Permanent use	Strategist

Fig 2. Adaptation of the typology of ICT user of [2].

3 Survey Results

We spent four years within the Human Resources direction of a major Aeronautical and Space company, which we shall name *Aero*. We made a longitudinal and qualitative research [5]. In order to provide the data necessary to measure perceptions and uses of the HR tools, formal interviews were conducted with middle managers. We conducted two waves of interviews (in 2002 and 2005). This population represents more than 1,000 persons. We distinguish three groups : managers of a department or similar position (level 1), managers of sub-department (level 2), and team's managers (level 3). The results of the first wave of interviews will be presented in the next session. In 2002, a total of 53 semi-structured interviews were conducted in 13 departments, grouped into four areas of activity: research/design, production, sales/ marketing and managerial/administrative.

3.1 Individuals Engaged in Research/design Activities : The "Super Technicians"

A Fairly Limited Representation of the Tool and its Usefulness: Information Content not Related to Their Needs. Firstly, all these individuals are engaged in research or design activities. The very nature of their work means they work either alone on projects or in teams on joint projects. Most of the individuals interviewed are graduates of engineering schools and pursue their specialities within the engineering and design department. They are accustomed to using a number of technological tools in the course of their work, the complexity of which is far greater than that of an HR intranet (e.g. 3D design software). Thus it might be thought at first blush that this highly technically qualified population, which obviously attaches great importance to technology, would find no difficulty in using a tool like the HR intranet.

However, it would seem that, contrary to this received idea, they actually make limited use of this tool. Over and above simple use of the HR intranet, we found that they were sufficiently familiar with the 'Employees' Space' to visit it regularly (once

a month). They were acquainted with its broad outlines but not with the details of the various menu items. This explains why the majority position vis-à-vis the tool is utilitarian, with a 'reluctant' minority.

The Type of Organisation Induces these Managers to Seek Out Specific HR Information. We are dealing here with an organisation of the 'professional bureaucracy' type, in [11]. Much of the coordination is handled by those engaged in research and design. The hierarchical relationship remains strong (mechanistic). The decentralised organisational structures mean individual workers have greater autonomy, which in some cases is experienced as relative isolation within the R&D department and, more widely, within the company as a whole (they criticise the lack of general information on the company's major projects and orders and on its strategic focus...).

This structural isolation is compounded by the vagaries of top-down information flows. Most of the managers interviewed took the view that the flow of information was generally haphazard and dependent on the goodwill of superiors. This general feeling was reinforced by the specific case of HR information: at the time of the survey at least, the HR department's image could be summarised in a single word – opacity. So much so, indeed, that most of the managers said they found themselves in an awkward position when their juniors raised questions after receiving information from their trade unions. At the time of the survey, none of the information to be found in the 'Employees' Space' was sufficiently detailed to provide answers to topical HR questions on salaries, careers, the award of bonuses or promotions.

These managers felt they were not in a priority position when it came to the distribution of HR information. The 'Employees' Space' did not provide them with targeted *management* information that might help them to carry out their duties. All this merely served to reduce the perceived usefulness of this 'Employees' Space' and explains why this population made limited use of it. Most of the individuals using this intranet site did so in their capacity as employees and not as managers.

Conditions of Access and Initial Strategy for Introducing the Tool. These explanations linked to the tool's informational content can be supplemented by strictly technical considerations, such as the conditions of access and initial introduction strategy. In order to access the 'Employees' Space', at least two conditions must be met.

The first is to have a network account (login and password). All employees whose work involves the use of a computer have such an account. All the managers in this population meet this condition. Having their own or even a shared computer gives individuals an opportunity to access the company's general intranet. They also have to be able to navigate the intranet from the start page and access the 'Employees' Space'. Once on this site, they still have to be able to find what they are looking for. Consequently, the second condition for access lies in the ability of individuals to use these internet/intranet tools. The designers of the intranet talk of a simplified architecture that allows intuitive navigation. However, the survey results seem to contradict them.

This last point raises the question of the type of training provided by the company when the general intranet was being set up. It is clear that there was no systematic

training programme providing instruction in the use of this new tool. Managers said they had learnt on the job or from informal contacts within the company.

The “Super Technicians” and their Strategy Vis à Vis the HR Intranet. This particular population of managers engaged in research and design activities can be described as ‘super technicians’. With just a few exceptions, these managers all follow the same career trajectory: whether they end up as heads of department or directors of research, they all enter the company as graduate engineers. After five to ten years’ service, having proved their technical competence and displayed some aptitude for management, they are entrusted with a management function. However, management forms no part of their basic training. The time they devote to their jobs as technical experts is gradually eroded by their new functions as coordinators, which require them to operate in both the bureaucratic and social spheres. In this context, managers receive information from a multiplicity of different sources (e-mails, newspapers, intranet sites etc.). This proliferation of information, which they have to sift and diffuse themselves, gradually leads them to become weary of and lose interest in these tools, which ultimately they regard as useless and a waste of time. When these ‘super technicians’ are asked what they expect of the HR intranet, it is hardly surprising that they demand HR information targeted specifically at management that would enable them to answer frequently asked questions both about HR procedures (how to proceed in such and such a case) and about more general and strategic issues within the company. What they want is information that would enable them to develop a discourse shared by all managers and create an aid for all managerial staff within the company.

3.2 Production Managers: “Assembly Line Bosses or Industrial Artisans”

We now enter the world of production, and more specifically that of the industrial workshop and assembly line.

A Limited Representation of the Tool and Its Usefulness: Tool Itself Far Removed from their Daily Concerns. Like the previous category of managers, attachment to the product is very strong, since they are involved in its physical production. The employees they supervise are primarily skilled manual workers, and their hierarchies often have their roots in the world of the craft worker. Simply by virtue of carrying on their trades, these workers have an *esprit de corps* and a sense of solidarity that does not exist elsewhere. To return to the use of the HR intranet, the survey results are very revealing: the level of use is very low, non-existent even. Views as to the intranet’s usefulness are not very positive (“*Waste of time, I can get the information elsewhere/no instinct for the intranet, paper culture*”). The dominant position vis-à-vis the tool is ‘neutral’, with a ‘reluctant’ minority. The first explanation for these results is that the HR intranet tool, like the company’s intranet as a whole, is a virtually alien tool in this world. Some are reluctant users, but the majority are indifferent.

Quite a number of individuals in this population use these technologies in their private lives, which means they are not immediately repulsed by the tool.

Organisational Type and Working Conditions Encourage Contact with Local HR Units. Pressure and the pace of work mean that managers needing to find answers to HR questions prefer to contact the local HR units in workshops and assembly lines, either in person or by telephone. This quick and easy method of contact meets their needs. Since the trade unions have greater influence in this world, these shop floor managers also maintain regular contacts with trade union representatives, who generally receive HR information before them. This state of affairs is deplored by these managers who, like the previous group, feel it places them in an awkward position, but they simply have to put up with it.

In addition, there is the question of the conditions of access to the tool. Without going back over what has already been said above, there is one feature unique to these production activities. We interviewed managers on three levels of the management hierarchy. Those on the bottom level (3) have the title 'team leader' (or foreman); most of them are not classified as managers but they do have managerial functions. Some share an office and a computer, others do not. This constitutes a *de facto* constraint on access to the tool. In order to overcome this difficulty, interactive terminals are currently being installed in the workshops.

Two Types of Actor: The "Assembly Line Boss" and the "Industrial Artisan". The first type of actor is the 'assembly line boss'. Managers in this category are on level 1 or 2 of the hierarchy and are responsible for more than 200 people on average. They generally reach their position as a result of internal promotion. They are above all men of action, with considerable charisma, who are more at ease on the shop floor than behind a computer. Moreover, computers (the bureaucratic aspect) are associated with secretarial occupations. This type of actor tends to be reluctant to use the tool, since they perceive it as an additional tool that will take up a considerable amount of their time and will offer little in the way of value added.

We use the term '**industrial artisan**' to denote the second type of actor. Most of this group are managers on level 2 and, particularly level 3 of the hierarchy. These individuals are also leaders. Those on level 2 are responsible for 100 people on average, including 5 to 6 team leaders (or foremen). These latter are in charge of smaller teams (30 skilled workers). The type of organisation favoured in the work shops and on the assembly lines is the 'divisional structure'. Further down the hierarchy, however, the type of organisation fluctuates between 'mechanical bureaucracy' and the 'simple structure'. In formal terms, team leaders (level 3) are part of a large division, but in their daily work they enjoy some room for manoeuvre (provided they meet their targets). In fact, some behave like small company directors, hence the designation 'industrial artisan'.

When these managers were asked about their expectations of the HR intranet, they all found it difficult to formulate a response. This was because they did not use it. What they wanted, rather, was direct communication between individuals, with a summary of the discussions being made available on the HR intranet.

3.3 Individuals Engaged in Sales/Marketing Activities: The “Free Electron”

We will not linger long over this type of actor, since the survey results place this category in the leading position when it comes to use of and position vis-à-vis the HR intranet tool (mostly ‘utilitarian’, with an ‘innovative’ minority).

With this population, we enter a new reference world, that of the salesman. The very nature of their activity gives these level 1 and 2 managers a high degree of autonomy. They are in charge of small teams. Of course they have targets to meet, but this is not done on the same terms as in the production department. They have permanent access to the tool, since they use their computers more or less continuously. Many use the Internet to keep up to date with the activities of competitors or of customers, which is why we use the term ‘**Free Electron**’ to describe them. As far as the ‘Employees’ Space’ is concerned, they use it regularly but expect much more of the HR department (more concrete HR information on salaries and management tools enabling them to save time). The notion of targeted management information articulated by the ‘super technicians’ is also echoed by this group.

3.4 Individuals Engaged in Managerial and Administrative Activities : The “Hybrid”, The Difficulty of Identifying a Typical Actor

We had difficulty in finding a common designation for these individuals. This is in fact more of a hybrid category, in the sense that these individuals are close to the ‘free electron’ in some respects, such as their use of the HR intranet (except that, when it comes to their views on the HR department and their type of expectations, a minority of them adopted the ‘neutral position’). Their working conditions and access to the HR tools are similar in many regards to those of the previous category (cf. table). In sum, there are within the middle management population a number of different approaches to use of the HR intranet, even though most of the expectations that were expressed were homogeneous and the majority positioning was utilitarian. Nevertheless, there are sectors and types of actors that are below what, in our view, is the minimum threshold for use of the tool. Consequently, what types of recommendations should we make to the parties commissioning the survey? Should we recommend a universal response or should a number of different responses be formulated depending on the actors identified?

4 Conclusion

The first results of our survey drive us to think that the profit expected by HR conceptors around the performance of the HR Intranet on middle managers's practices are not so obvious. That means that the rationalizing logic of the tool meets different *local universes*, driving to practices and uses of the intranet in an unexpected way.

Middle management was making moderate use of the HR intranet at the time of the survey in 2002. Our main result is the emergence of five typical actors : « super technicians » ; « assembly line bosses » ; « industrial artisans » ; « free electron » ; « hybrid ». Which of them has specific links with the HR intranet.

In general terms, those survey results confirm the hypotheses that the nature of managers' activities and organisational structure had an effect on representations, levels of utilisations and expectations of an HR intranet. Our next question that we need to answer is : could the local universe concept be a strong element to re-interrogate the Orlikowky Structurationist Theory through a new way of understanding links between ICT and Work ?

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