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Opportunities for Professional Development and Performance Improvement as Part of ICT - Reflections on a Community of Practice Case Study in Hungary

Mary O'Flynn
Faculty of Business & Informatics, CQ University Australia, Mackay, Queensland, Australia
m.oflynn@cqu.edu.au

Carolyne Stanforth
Centre for Development Informatics, University of Manchester, UK
cmstanforth@aol.com

Abstract

Public administration reform programmes will typically include ICTs as a core component of the performance improvement effort. However, simply buying in the hardware will not in itself bring about the development goals targeted within the respective organisational setting. Refinement of the human as well as the technological competencies of the organisation is needed.

'Communities of Practice' in which the individual members learn by participating in shared activity provide a useful approach to studying how the achievement of professional development goals may lead to performance improvement. This paper discusses the application of the theory of situated learning and 'Communities of Practice' with reference to a public administration reform case study in the transitional economy of Hungary in which both authors actively participated as management consultants.

The paper reviews the original development project objectives as outlined by the international financing institution and the professional development and performance improvement goals incrementally achieved within the emerging 'Community of Practice' in the Project Management Unit of a social insurance administration reform project. It also examines the formation of a parallel 'Community of Practice' of individual managers from the two concerned organisations (the pensions and health insurance bodies) through their participation in the formal management training programmes. The means by which these two communities interacted and eventually integrated are traced, with reflections on the roles of the various boundary-spanning objects (human and non-human) in play in the project.

Keywords: Professional development, performance improvement, development policy, public administration reform, ICT, development informatics, situated learning

Introduction

Hungary became a member of the International Bank for Research and Development (IBRD) in 1982. Since then, the IBRD has granted loans in the region of US$ 1,268m to 13 projects ranging in scope from the development of the oil and gas industry to roads infrastructure to investment in health services and social insurance. The latter two projects, aimed at improving health conditions and social welfare for the Hungarian population, were started in 1991 under a single project run by the Ministry of Welfare and were subsequently split into two projects, the Health Services and Management Project and the Pensions Administration and Health Insurance Project.

The National Health Insurance Fund Administration (NHIFA) employed 7,000 people and came into being in May 1993. It was responsible for collecting contributions from the population and for paying healthcare providers whilst investing money collected in suitable portfolios and managing real estate assets. It was running a deficit of US$ 275m per year funded by Central Government. The National Pension Insurance Administration (NPIA) employed 4,000 people and was responsible for receiving pension contributions and paying pensions based on determination data. At the time, the pension records were held on some 90m paper documents and 10m microfilm images. Private pension schemes were introduced during 1998 and the NPIA was interested in moving to image and workflow technologies for records management. The Pensions Administration and Health Insurance Project (PAHIP) came into effect on 9 November 1993 with a Project Management Unit (PMU) being established to manage the disbursement of the loan and to provide project management, project accounting and procurement functions. Following a competitive bidding exercise, the UK operation of a global Management Consultancy firm was appointed to support the PMU in its work. The authors of this paper were employed by the UK Management Consultancy firm appointed to support the PMU.

PAHIP Context

The PAHIP project was originally set as a five year project with a scheduled end date of 30 June 1998 but the project was extended until 2001. The objectives of the PAHIP project as defined in the Staff Appraisal Report dated 5 March 1993 of the international financing institution were:

- To improve the institutional capacity of the social insurance system to manage its financial resources more effectively, thereby contributing to its financial viability; and
- To enhance the efficiency, targeting and quality of client services financed through the social insurance system by modernising its administrative infrastructure.

To meet these high level objectives, the PAHIP project was initiated with two component elements:

- The management development and planning component which was intended to improve the institutional capacity of the social insurance system to manage its financial resources more effectively by:
    - Providing management support in implementing major projects needed to upgrade its administration infrastructure
    - Developing a detailed strategic systems plan and introducing needed organisational evaluation capabilities of Hungarian policy makers and managers
    - Strengthening the policy-making, planning and evaluation capabilities of Hungarian policy makers and managers
    - Assisting in the assessment of future investment strategies
- The operational infrastructure component which was to modernise the administrative infrastructure of the social welfare system by:
    - Developing application software
    - Introducing computerised data processing, modern financial management, and efficient communication systems, as well as an upgraded office environment.

The perceived performance improvement benefits from this project were:

- Improved client services through more efficient benefit payments and responsiveness to benefit enquiries
- Cost savings through more effective administration methods through the use of computerised systems (for example on-line access to an eligibility system)

- Improved access to contribution records to reduce fraud and abuse of the system
- Improved use of hospital facilities and a reduction in the expenditure on pharmaceutical products.

The PMU was tasked with co-ordinating the implementation of the project and was staffed with employees of the Health Insurance Administration along with management consultants from the UK (the International consultants), Hungarian consultants and a dedicated team of translators and interpreters.

Forces For and Against Change

Hungary was rapidly developing towards a market economy and was ultimately preparing itself for accession to the European Union (which it later achieved on the 1st May 2004). The State previously played a large role in peoples' lives consequently social insurance reform was a significant undertaking. No longer would the State be the sole provider of social benefits (private providers were starting to enter the market). A very generous social policy was a legacy left over from communism, but without an economic base able to finance commitments. The State budget was under pressure and public expenditure cuts were regarded as being necessary. The emergence of better customer service in the private sector was creating higher customer service expectations and would also be an emerging force for change in the public sector. Increased exposure to Western-style management practices was also creating an impetus for change.

A major driving force for change was also created by the restructuring of government departments according to the Government's objectives at that point in time. At the outset of the World Bank / IBRD loan discussions, the Ministry of Social Welfare undertook the complete range of tasks in the social sector. By the time PAHIP started, social insurance responsibilities had been divided between the Ministry for Social Welfare, Local Government, the Ministry of Finance and the two new Administrations. The challenges brought about by this restructuring included intense power-play debates over buildings, equipment, allocation of staff, assets, etc. and, afterwards, unclear roles and responsibilities within the two new organisations and the boundaries thereof.

Other forces against change included the very hierarchical and centralised decision-making processes in government which created significant bottlenecks. Although Hungary was perhaps the most Western-oriented of the former Communist countries, the sheer scale of change taking place in such a short timeframe was overwhelming and had not previously been experienced by those in decision-making roles. The reforms were introducing rapid nationwide economic privatisation-driven change to citizens accustomed to certainty, security, State control and State subsidies. The degree of uncertainty in crossing this sea of uncharted waters without an assured strategy for success was a daunting prospect for risk-averse management and leaders unaccustomed to both change on this scale and to the related need to develop a vision to drive forward many of the required changes. Decision-makers were fearful of criticism and blame. The new means of decision-making, based on best practices, were not readily accepted by the old networks which continued to operate and to play a valuable role. For example, selection of suppliers based on best practice tendering procedures required the development of new skills in procurement and short-listing as opposed to the more straightforward approach of relying on trusted old networks.

Communities of Practice

The analytical framework to be applied in this case study of professional development and performance improvement in the ICT-focussed PAHIP project is Lave and Wenger's (1991) situated learning theory, which is a specific version of social learning theory. The principal element in this approach is the notion of the community of practice in which the individual members learn by participating in shared activity. A community of practice is defined as "a flexible group of professionals, informally bound by common interests, who interact through interdependent tasks guided by a common purpose thereby embodying a store of common knowledge" (Jubert, 1999, p. 166). So if an organisation is "a set of stable social relations, deliberately created, with the explicit intention of continuously accomplishing some specific goals or purposes" (Stinchcornbe, 1965, p. 142), where does this 'flexible' and 'embodied' source of knowledge fit? What advantages can an analysis of the communities of practice within an organisation provide?

There is a growing recognition that the interplay of tacit and explicit knowledge is a critical factor in organisational learning. A primary management task is the

conversion of (tacit) human capital into (explicit) structural capital and communities of practice have been identified (Nahapiet and Ghoshal, 2000) as the site where this alchemy can occur. Wenger (1998; 2000) asserts that communities of practice are distinguished from other organisational groupings by three specific elements:

1. Members understand what the community is for; that is, the members feel a sense of joint enterprise and accountability.
2. Mutual engagement arises when members have time to build trust and relationships with one another through regular interactions.
3. Members develop a shared repertoire of stories, language, etc. that embodies the distinctive knowledge of the community and allows members to negotiate meaning.

A temporary community of practice is formed when members come together specifically to solve a particular problem of common concern (Arias et al 2000). When this occurs in the context of a project focussed on ICT development, such as the PAHIP project, there is great potential for the community to be truly innovative and transformational if the members can exploit the knowledge-sharing between themselves as a source of collective creativity. Complexity in ICT-focussed projects arises from the need to synthesise stakeholders' different perspectives of the problem, to understand the design decisions that will determine the long-term evolution of an information system and in the management of large amounts of information. The knowledge associated with these types of problem is distributed tacitly among many, each of whom possesses an important and yet incomplete understanding of the problem. This distribution of knowledge - this "symmetry of ignorance" according to Rittel (1984) - implies that communication and mutual learning are among the most important activities in framing and resolving ICT-focussed project design problems.

Fundamental challenges include the building of a shared understanding of the task at hand, which often does not exist at the beginning, but evolves incrementally and collaboratively and emerges in people's minds and in external artefacts. The members of the community must learn to communicate with and learn from others who have different perspectives and perhaps a different vocabulary for describing their ideas. This type of learning requires externalisations in the form of boundary objects (Star,

1989) which have meaning across the boundaries of the individual knowledge systems. Support to the community must therefore enable mutual learning through the creation, discussion and refinement of boundary objects that allow the domain-oriented knowledge systems (such as IT, finance, social insurance) to interact.

Members of the community need a means for visualising knowledge to establish a shared understanding and it is around boundary objects that the community often gathers. They are an important class of knowledge artefacts, sometimes also known as common information spaces, and are central in the dynamics of knowledge exchange. They are not merely material; boundary objects can be 'tools, artefacts and techniques, and ideas, stories and memories' (Bowker and Start 2000). They can also work at the edges of communities of practice mediating their external relationships and enabling co-ordination.

We will now examine how the targeted professional development and performance improvement goals were incrementally achieved within the emerging community of practice in the PAHIP Project Management Unit. We will also examine the formation of a parallel community of practice of individual managers from the two concerned social insurance organisations through their participation in the formal management development programmes supported by the PAHIP project, as well as through their exposure to the role-model behaviour of the international consultants who purposefully adopted structured managerial practices, including formal meeting agendas and facilitated management of air-time.

Professional Development within PAHIP

With regards to the community of practice in the Project Management Unit, targeted professional development and performance improvement goals were achieved by a combination of PMU management and staff attending formal professional training, workshops, organisation of reference-site visits and by two-way day-to-day knowledge transfer by participation in shared activity within the PMU. By engaging in shared PMU activity, Hungarian PMU team management and staff benefited from a transfer of knowledge from the International consultants and the International consultants, in turn, acquired important insights into the culture of the social insurance

organisations and into Hungarian culture and management styles. This achievement did not, however, occur overnight.

In line with Wenger's (1998, 2000) assertions, the PMU community members had to develop an understanding of the aims of the PMU and had to work hard to develop a sense of joint enterprise and accountability. It was important for the Hungarian and International Consultants to built trust and relationships with their Hungarian PMU community colleagues through demonstrating commitment by basing themselves in-country and by regular work and out-of-work social interactions. Over time, the PMU members developed a shared repertoire of stories and terminology (although in two languages) to embody the knowledge of the PMU community.

Throughout the eight-year duration of the project, new International Consultants joined the team to take over responsibilities from colleagues who transitioned on to new projects/companies to achieve personal career progression/personal development goals. In addition, new Hungarian Consultants joined the team. As new team members joined the community, they quickly had to develop this shared understanding of the community's project objectives, ways of operating and to develop the same level of trust as their predecessors. All but one of the first International Consultancy team operated on a standard fly-in fly-out approach, one member whilst still fly-in fly-out, also had an apartment in Hungary and integrated more into the local environment as a result. The second and third teams of International Consultants took up permanent residence in Hungary. The International Consultants living in Hungary and learning about the Hungarian culture went a long way towards demonstrating corporate and individual commitment and gaining the trust and appreciation of the Head of the PMU. The consultancy firm demonstrated further development commitment by contracting in Hungarian consultants for certain key roles within the PMU, whilst the International Consultants were able to benefit from their colleagues' local insights, experience and expertise.

Since decision-makers within the NHIFA had no prior experience of change on such a large scale or the techniques utilised by organisations in Western countries to manage change, the International consultants had to focus on transition management activities before any case for change or analysis of the current environment could be undertaken. Within the emerging community of the PMU, these transition management activities included programme management, project management,

managing communications, securing commitment, building teams and transferring skills.

Programme management included setting up the PMU, writing project management, procurement and financial management manuals, setting software and document standards, agreeing document translation processes, defining PMU team roles, responsibilities and training requirements and establishing an equipped physical office. Knowledge of these programme management methods were incrementally transferred from the international consultant members of the PMU community to the Hungarian client members of the PMU community by means of training, role-model behaviour and day-to-day practice resulting in a shared understanding of the benefits of utilising such methods. In terms of project management, it took approximately one year to establish a recognisable project management structure for the PAHIP.

Meetings within the NHIFA and NPIA were haphazard: there were no agendas for meetings, no action points and attendees changed every time. The International Consultants consequently adopted the stance of role-modelling the behaviours which they wished to encourage, such as taking agendas to meetings, writing and circulating minutes and action points. As a result within each respective community of practice (ie the Community of the PMU itself and the community of practice of individual managers from the two concerned social insurance organisations), the practices they were trying to encourage were gradually adopted by managers. Rather than impose a project management methodology which would only be rejected, the International Consultants focused on critical aspects of project management eg being clear about deliverables, deadlines and assignment of responsibilities.

Management of communications was not easy because the PMU members had to rely on interpreters to both communicate in Hungarian or English on their behalf and to translate all project documentation into both Hungarian into English. The interpreter team were part of the PMU. Since each document produced was translated from English into Hungarian and vice-versa, time was invested by the International Consultants in the early months of the project to provide the interpreter team with training in the project document standards. In addition, time was spent to develop a shared understanding of terms, especially for management concepts that were at the time new to the Hungarian business landscape. Efforts made by the International Consultants to study Hungarian also assisted in terms of a further demonstration of

commitment by the International Consultants to the project and assisted with client relationship management.

Initially only the International Consultants' Project Manager and his Deputy were getting regular access to the Head of the PMU and other members of the team of International Consultants experienced difficulties in meeting with her. In the early stages, the International Consultants were also forbidden from having direct contact with client managers other than through the Head of the PMU. In response to such restrictions, the International Consultants undertook periodic stakeholder management activities, including a cultural analysis which enabled the identification of a number of factors concerning the relationship between the International Consultants and the Head of the PMU namely:

- She probably needed more time to develop trust and confidence in the International Consultants
- She probably had a preference for face-to-face contact once trust had been established
- She probably felt it was her role to deal with other managers within the social insurance organisations and probably saw the desire of the International Consultants to deal directly as a threat to her status and as an act of disloyalty
- She knew what was happening because Hungarian PMU members would give her regular feedback

In situations where the International Consultants did not have direct access to key client managers, stakeholder management enabled the consultants to utilise indirect influence instead. The Consultant Project Manager encouraged the Head of the PMU to meet with his consulting team members, efforts were made to take up opportunities to demonstrate their respective expertise and to raise the profile of the Head of the PMU at all meetings. In addition, communication to the Head of the PMU was verbally transmitted through her deputy rather than via written communication. Within six months of taking these steps, the relationship had developed to the point that she trusted each International Consultant to build relationships directly with other client managers and to act independently. It was felt that these efforts had succeeded when the International Consultants were invited by the Faculty Head responsible for a

post graduate course in social insurance at Széged University (an old friend of the Head of the PMU) to deliver a lecture on "Management and IT issues in Social Insurance". This opportunity was subsequently repeated on a number of occasions throughout the project and is a good example of how effective stakeholder management helped in moving the project forward. Hungarian culture places a high emphasis on personal relationships and the time spent to develop these personal relationships and to build a team within the PMU itself with shared interests and a common store of project knowledge was time well spent.

A number of team-building events were organised by the International Consultants for the community of the PMU in its early forming stages. Belbin team-theory (Belbin, 1981) was used and shared amongst PMU members to develop a better understanding of each other and therefore enable team members to take greater account of each other's strengths, weaknesses and interaction-style preferences. The third team of International Consultants, conscious that a change of team members meant a return to the forming stage of group development (Tuckman, 1965), organised a number of social events, such as team dinners at local restaurants and at team-members' homes, and even coordination of an outing for senior Hungarian PMU members to see an internationally acclaimed dance and music performance conveyed mostly without words during a London business trip. Attendance at the dance and music performance of Riverdance achieved the objective of social entertainment which did not require the interpreters to translate from English into Hungarian. These social outings played an instrumental role in building trust between the members of the PMU community as they provided informal opportunities for personal interaction and played a key role in moving the PMU community through the forming/storming stages into the norming/performing stages of group development (Tuckman, 1965).

A change of International Consultants also meant that the new ones had to quickly develop an understanding of the already existing stories, language and terms which had developed over the duration of time that the previous International Consultants and their Hungarian counterparts had been working together. New Hungarian Consultants also encountered these experiences, though perhaps to a lesser extent due to common culture and language. The Consultant Project Manager actively assisted new team members transition into the team and develop client trust.

In terms of skills transfer, in addition to role-modelling good project management and programme management practices in meetings within the PMU and with the social insurance organisations, each International and Hungarian consultant role-modelled and coached counterpart client staff. Skills transfer also included formal training course attendance eg the Head of the PMU attended the contracted programme of core management training (along with other managers within the NHIFA) which was delivered by a Hungarian-Irish training organisation based in Hungary, delivered in Hungarian and focused on developing the skills required to manage large scale change and to develop a customer-centric focus. A group of one hundred and fifty managers attended this programme. Subsequent programmes delivered to further groups of one hundred and fifty managers included core management training, team training, senior management training and train-the-trainer training to facilitate delivery to middle managerial and supervisory levels. As part of the core management training, Bristol University indicated their preparedness for this training to count as credits towards the Diploma and Masters programmes awarded by the University.

In addition, the PMU Hungarian IT Manager attended PRINCE2 Project Management training and a Hungarian Consultant within the PMU finance team attended a programme of Management Consultancy training within the context of a separate project delivered by the same consultancy firm. PMU secretarial staff also attended Executive Secretary training in the UK. These three formal training programmes were delivered in English. IT training skills were delivered by a Hungarian IT Consortium and Train the Trainer and county training sessions for the new contributions system were also provided by an external provider. Whilst not charged with responsibility for these two training contracts, the PMU consultants did obtain updates regarding the co-ordination and roll-out of these training programmes and evaluated the IT training delivery sections of all submitted proposals.

As regards training in the rules and procedures of the international financing institution, these were skills which were acquired by all members of the PMU community of practice and transferred by them into the wider community of practice within the social insurance organisations. Members of the PMU developed a shared repertoire of the international financing institution's procedural language and stories and soon became the trusted brokers, trying to identify and interpret the requirements of the two social insurance organisations and then seeking ways of developing

projects to meet these requirements which would fit within the guidelines of the international financing institution. Training in procurement procedures, developing terms of reference and evaluation criteria was provided to the PMU community of practice and personal coaching in this area was provided by the International Consultants during regular one-on-one meetings which were organised with appropriate Senior Management of the social insurance organisations. For example, tender documentation for customer service training and language training contracts were developed through organising regular meetings between the NHIFA Head of Training, the International Consultant responsible for the training sub-project, the Hungarian client counterpart and an Interpreter. Management training tender documentation were developed using the same processes. This provided the opportunity to capture client requirements and to advise and share researched best practices in these specific training areas.

Senior management within the social insurance organisations participated in social security conferences and undertook study tours to overseas social insurance organisations in order to learn how other countries managed their social insurance systems and to develop contacts with professionals holding similar roles in the international social insurance domain. The four key areas of focus for study tours were social insurance policy, change management (focusing on implementation/transition management), customer service and technology. Attendance at one of these conferences led to the investigation for a joint UK / Hungarian (York University / Széged University) postgraduate course in social insurance. Course objectives, draft course curriculum, a target trainee group, teaching/examination methods, timing, costs and programme benefits, as well as justification for York and Széged University involvement, were developed and presented to the international financing institution for their 'no objection' to funding.

A Masterclass training programme was also conceived which included work undertaken by the UK Benefits Agency to develop a customer service culture, a technology forecast Masterclass delivered by the International Consultants and a series of three Masterclasses delivered by a prominent UK University Professor having wide experience of leading change in a number of UK central government departments, including those with a focus on Health and Welfare.

Professional development also took the form of developmental change occurring within the individual International Consultants, who made significant steps in terms of developing awareness of cultural differences and the importance of adapting to the local environment in order to achieve common understanding and progress. Flexibility, a demonstrable understanding of the local environment and the ability to adapt international management methodologies and practices to the local environment were critical success factors which the consultants had to acquire to move forward.

As the project came towards its end-date, the PMU Community of Practice and the NHIFA Community of Practice of trained managers merged when Hungarian members of the PMU transferred back into the social insurance organisation. Indeed, one PMU staff member secured a very senior role within the NHIFA. Years afterwards, a number of the members of these project-based Communities of Practice remain in good contact with one another as the shared stories and experiences have endured.

Concluding Thoughts

This analysis of a case study of performance improvement and professional development in an ICT-focussed project has drawn on the communities of practice theoretical framework. But what lessons can we draw from this analysis and, specifically, what kind of support is required when such a community of practice is being negotiated?

Certainly, a technological base for communication and representation is needed (Star and Ruhleder, 1994). But it was not until the PAHIP project had been operational for some time that this was recognised, resulting in a computer network being belatedly installed linking all of the PMU members - and some of the social insurance managers. There was no equivalent common information space, no modular repository of information during the early stages of the project, where community members could gather to exchange views, co-ordinate activities and create knowledge. Only the face-to-face interactions at the intermittent meetings enabled members to understand meanings in the same way across the boundary. This led to initial misunderstandings and frustration as inputs to joint meetings and reports

"patrolled" the boundaries, through unexplained jargon and technical terms, rather than building up the necessary comprehension to cross them.

Boundary objects can be "stuff and things, tools, artefacts and techniques, and ideas, stories and memories" (Bowker and Star, 1999) and, according to Frost, Reich and Fujisaki (2002), "they can also be people". Throughout the project, a recurring dialectic concerned the use of the English language. The design expectation of the PMU was one of active involvement of the social insurance organisations with "best practice" project management techniques, supplied by non-Hungarian speaking international consultants, predicated upon the NHIFA's full-time secondment to the PMU of a core of nominated English-speaking officials. However, the full-time team of interpreters had initially to provide that language and comprehension bridge between the consultants and the seconded officials. This bi-lingual talented group of individuals, who had worked in a similar role previously on an internationally-financed project, were capable of dealing with the codes of both of the worlds from which the members of the PMU originated. Building the language facility of both the consultants and the officials was purposefully supported by the project and, over time, the language divide was successfully navigated and technical expertise was able to be shared much more easily.

Standardised forms, methods and procedures were an important type of formalised knowledge-sharing boundary object utilised in the formation of the communities of practice. Standards are robust and portable: a declaration of compliance with a recognised standard crosses the international and local divide. The consultants purposefully role- modelled efficient and internationally-recognised project management techniques and these standards eventually became adopted by all as the operational procedures of the PAHIP project. The consultants also carefully introduced non-institutionalised boundary interactions to strengthen trust and create openness. An instructive example is the music and dance outing that took place one evening on the UK study tour. Such an interaction facilitated the management of the institutionalised boundary object: namely, co-ordination of links with the UK social insurance institutions that would support future "best practice" training.

Wenger (2000) suggests that stories or narratives are a critical component of identity in a community of practice. The performance improvement goals of the PAHIP

project, for example, served as a point of mediation and negotiation around intent because it necessarily contained sufficient detail to be understandable by all parties but no party was required to understand the full context of use by the others. But the majority of the discursive infrastructure, the genres or shaping stories, allowing the members to make sense of the project interactions gradually evolved in the PMU. There was no intent to create and record stories but the narrative infrastructure was progressively constructed along linear lines - with a variety of accounts being formed over time, formal and informal, technical and social, for internal and external purposes.

This analysis has illustrated how material artefacts (such as computer systems and standard procedures), symbolic objects (such as modernisation goals and social interactions) and talented individuals (such as the multi-lingual interpreters) were purposefully used as boundary objects to serve the sharing of knowledge, over a lengthy period of time, within the communities of practice in the PAHIP project.

For communities of practice to form and project teams to work effectively together, the case study has shown that it is vital that a shared understanding of the underlying beliefs, values and principles that will guide the work is developed. However, on short-term development informatics projects, the time may not be available for such knowledge-sharing to take place and individuals may need to act under pressure, overloaded with new information, documentation and environmental stimuli. Each individual makes sense of the project environment under the constraints of the time available and within a bounded rationality so frequently perceives only a reflection of their own beliefs (Baumard, 2001). There are some possible implications for policy and practice here.

In ICT-focussed projects assisted by the international financing institutions, there is a strong possibility that the direction of the project may be influenced by the “the institutional forces of ICT” (Avergou, 2002). ICT is not simply bare hardware, software and communication cables. It comes loaded with notions of business management and an army of commercial suppliers keen to apply them. The partiality of ICT as an institution oriented to serving the dominant ideology of business in the context of a free market economy can limit its responsiveness to the particular

requirements of the organisation in which it is to be implemented, especially when this is a public sector organisation in a transitional or developing economy.

The embedded rationality of the Hungarian social insurance organisations might potentially have been in conflict with that of the suppliers to the ICT-focussed PAHIP project on which they had embarked. The bias of ICT to a particular organising regime was, however, recognised and carefully managed by the PMU. For example, the advantages of the planned back-office computerisation of records were presented in the organisations' own terms with this crucial message being crafted and delivered by a PMU community of practice speaking "with one voice".

Many studies of communities of practice are uncritical, with a focus on "how we did it well". Such an approach is unhelpful from a development informatics perspective where the focus must be on identifying what factors might work elsewhere and in what ways. The advantage of the PAHIP project case study to such learning has been that it occurred over a lengthy period, there was a considered focus on change management and consultants with specific skills and experience in organisational learning were purposefully included in the team. However, the theory of situated learning on which the concept of the community of practice is based implies that the knowledge-sharing processes themselves, while identifiable as the same at some level, take on a different significance when situated or networked into a different set of organisational practices. It may be then that it is the pattern of participatory processes that is transferable rather than the specific techniques.

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