Almost all writing on innovative workplaces reflects an organisational perspective. The workplace is seen as a tool in the managers’ kit: it represents capital, it can act as a catalyst for organisational change;¹ it contributes to business strategy.² The response of the employee to the workplace is also important, because believed that a worker satisfied with his workplace is a productive worker.³

This organisational approach is not strange, because CRE thinking is very often influenced by business economics. The cost-benefit question is very much asked. However, serious evidence on cost-benefit relations is scarce.⁴ Another observation is that this cost-benefit question is usually reduced to the cost element: what are the costs of the workplace? Benefits are sometimes reported, but serious evidence on the relationship between costs and benefits is rarely found.

Due to individualisation the workplace becomes an instrument in the employment contract (whether collective or not). Although this is far from universal, it is current practice in some Dutch organisations, and the application of work process innovation (eg teleworking) is becoming

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ABSTRACT

Workplace innovation is a much-described subject. Workplace innovation is usually introduced to increase flexibility. Workplace knowledge is, most of the time, institutionalised in formal tools. These tools compete with creativity of employers, employees and professionals. This paper describes the quest for frameworks helping professional advisers to grow in knowledge and understanding of workplace innovations. The experience of the Dutch Government Buildings Agency is used to illustrate the search. A research agenda is given.

Keywords: workplace innovation, frameworks, knowledge domains, rationality, creativity, reflection
part of the collective labour agreement for Dutch civil servants. This seems a tendency to cope with emancipation of the workforce. The other reason lies in the reduction of commuter traffic. It is the choice of the employee — in the final analysis — either to have a fully equipped workplace in the office (own room!) or to be a working nomad without a fixed place wandering around the organisation’s premises or working from home and enjoying the reward of a higher personal income. This reduces the workplace to an element of individual economic choice. It is worth experimenting with this personal choice based workplace because it will teach us about the bottom line of social cohesion in organisation. This social element of working together might be a very important element in giving meaning to working life.

The development of workplace knowledge is heavily focused on the organisation. The contribution to organisational performance is expressed in all kinds of fancy measures: ‘If you can measure it you can manage it’. Employee satisfaction is often seen as a measure for individual productivity. At the same time there is a huge demand for individual creativity not fitting into a framework of measures. This seems to be a rather unbalanced or paradoxical situation.

REVOLUTION: OR WHAT IS THE POINT?

Innovation of the workplace can easily be added to a list of terms in organisational literature representing ‘a change’, or just ‘change’, but still with a mystical meaning: change, innovation, autonomy, ambiguity, organic, dynamic, creativity, empowerment, and so on. Sometimes authors refer to what they observe as a revolution, representing or leading to new relationships between employee and employer, between organisation and shareholder, between government and the public. The need for demystification leads us to rationalisation of what is happening in the workplace and in the design of the workplace. The rationalisation stresses the assumption of many organisations that they can manage as its metaphor (the machine) suggests: seven days a week, 24 hours a day. Workplaces are seen as instrumental projections of this metaphor. Numerous research projects aimed at a better understanding have ended up in the hands of ‘organisation-makers’ using subtle knowledge outside their original context. This does not mean that the author believes that research needs protection or that we should stop making tools. The point is that in workplace activities people are involved. Since innovation of the workplaces is often felt as a stressor, we should really aim for a human friendly approach: no wrong management motives, clear objectives, open atmosphere. People are very sensitive to what is honest, real and realistic.

The lack of coherence was very much felt by the internal advisers of the Dutch Government Building Agency (GBA), offering workplace advice to Dutch government departments. A lot of workplace initiatives taken by the Government were motivated in order ‘to show the difference’. This showcase element applies to all kinds of elements of government workplace projects is expected to be rather different from private sector projects usually driven by cost reduction or improving performance. Employees can themselves be used as test material in innovative workplace projects. Being a
part of such a project can work for a short time as an incentive, but not for too long.

**LACK OF RICHNESS**

Consultants (business consultants, engineers) hired to support government projects seem to have a mono-disciplinary approach. Even worse, they seem to monopolise it. It was, however, expected that some ‘border-crossings of disciplines’ might enrich approaches, processes or results, or at least bring in some efficiency and reduce misunderstandings. There was not much evidence found of natural adventurous behaviour of understanding one another’s field.

The lack of efforts to bring synergy to the end user was felt with regard to development, application and consequences of information technology. This impacts all disciplines, but only a few people seem to have the guts to step aside and have an in-depth look into another discipline for a better understanding of problems, concepts, solutions and implications regarding IT.

The need was felt to develop a comprehensive framework for understanding all relevant workplace issues (at least those suited to government projects). At the same time the danger existed that such a framework could once more become instrumental evidence; more about this later.

This paper describes the experience of the Dutch Government Buildings Agency between 1990 and 2000 in its search for knowledge supporting flexible working in a government context.

**PAST EXPERIENCES**

A broad set of experiences consisting of partnering in research consortia, forum memberships, networking, developing in-house projects, research etc reflects the search for knowledge over more than the past ten years. The most important are described here, without going into detail on individual workplace innovation projects.

**International Workplace Studies Program**

Partnering with the International Workplace Studies Program (IWSP) (sponsor since 1988; it was then called the International Facilities Management Program, Cornell University, New York) created a knowledge base of mainly North American workplace thinking. This was due to the background of the sponsors and the research team. Nevertheless this research consortium proved to be very valuable to the Dutch Government. It helped understand implementing innovative offices and managing workplace change. The research outcomes (based on case studies) limited more generic conclusions (because of limited statistical validity), but for practical reasons the outcomes made sense. The existing body of knowledge on alternative workplaces is very much based on the efforts of professors Becker and Sims and their team members.

The first workplace innovative project was undertaken within the Government Buildings Agency itself and consisted of the introduction of systems furniture in order to optimise space use. Employee satisfaction surveys were done, including space and time measurements.

**Workplace Forum**

In Europe there existed no such research platform as IWSP. The cultural differences between the business approaches of North America and Europe made GBA search for a more contextual exchange platform. Although United Kingdom office design seemed to be strongly influenced
by American (US) office design, there was a better understanding of ‘continental’ context. Therefore the Workplace Forum (directed and maintained by the London-based firm DEGW) was joined. Site visits and discussions with practitioners and academics were highly valued in terms of re-thinking and re-framing office concepts.

The Workplace Network
In order to exchange experiences with other public real estate organisations The Workplace Network (TWN) was joined. On this platform executives of real estate departments of public and former public bodies (postal; telecom) exchange trends, best practices and lessons. The evidence on the effectiveness and efficiency of innovative workplaces was found to be more anecdotal and fragmented. Efforts were and still are made by member organisations to support research focused on better understanding of the workplace in relation to work and environment. In the TWN 2000 workshop (San Francisco, 2000) it was concluded that the Dutch efforts in understanding the workplace were among the most serious and systematic. Through the membership of TWN GBA learned about other research-based consortia. Among those were the next two consortia.

ABSIC
One of the consortia is ABSIC (Advanced Building Systems Integration Consortium, Carnegie Mellon University, Pittsburgh, USA), with both private and public membership. The public membership is mainly US-based; the private membership is partly European, partly US. The Consortium believes that high-performance buildings must provide appropriate physical, environmental and organisational settings to accommodate changing technologies and workplace activities. Although there is evidence that Europe is ahead of the USA in many state-of-the-art building technologies, the research programme on finding evidence on the relationship between buildings and organisational and individual productivity is very attractive. The Dutch Government is a member of this consortium.

Workplace Productivity Consortium
The second is The Workplace Productivity Consortium (based at Berkeley University), which consists of North American companies and one US federal government organisation. The Dutch Government is not a member of this consortium, which tries to answer questions like:

— What is the current state of research on workplace and knowledge worker productivity?
— What factors influence knowledge-worker productivity, and how do you measure it?
— What is the relationship between organisational and cultural context (management style, organisational structure, etc) and the work settings and technologies?
— What kinds of physical settings (workstations, team spaces, floor layouts, etc) are most conducive to productive work?
— What alternative workplace strategies have shown positive results in terms of both economy and productivity?
— How are electronic collaboration technologies changing the form of the workplace?

Co-operation of GBA with Delft University
In 1996 the Dutch Government Buildings Agency started a joint research programme with Delft University of Technology, Department of Real Estate and
major interest in describing employee satisfaction. The method evolved contained a range of performance indicators and was applied during a number of years to several projects, not only of the Government (e.g., Dynamic Office Haarlem) but also of the ABN/AMRO Bank. The research design is defined as quasi-experimental, because it was not possible to control all variables as in a laboratory experiment. It is described in the booklet ‘Searching for Data’.

THE SEARCH FOR INTEGRATION

Very soon after its start in the late 1990s the GBA Internal Advice Unit for Workplace Innovation was confronted with a variety of customers’ needs. Total project management, interim management, strategic briefing, contribution to change projects, design of innovative working environments, personal counselling; all these came to the desks of its staff.

Project Management. The programme was called Towards Flexibility in Work and Office Concepts. The research is aimed at analysing the impact of new workplace environments on the performance of organisations and individuals. The productivity question was set aside because of definition difficulties: what is productivity in a government environment?

With the support of the Government Buildings Agency, the researchers developed a communicative framework in which various office concepts (commonly called ‘alternative office concepts’) are defined and explained. The booklet was called ‘The Office, the Whole Office and Nothing but the Office’. The basis for the framework — in which the office is defined as a working environment where people process information — is the changes in place, space and use illustrated in Figure 1.

Methods for the evaluation of innovative concepts were also developed with a major interest in describing employee satisfaction. The method evolved contained a range of performance indicators and was applied during a number of years to several projects, not only of the Government (e.g., Dynamic Office Haarlem) but also of the ABN/AMRO Bank. The research design is defined as quasi-experimental, because it was not possible to control all variables as in a laboratory experiment. It is described in the booklet ‘Searching for Data’. 

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- Place from central to dispersed
- Space from cellular to open/diversity
- Use from personal to shared/non-territorial
In a number of evaluations of innovative workplace projects it was found that work processes, style of management, organisational culture and implementation of the office concept played a major role. This was not new, but it did not make the comparison of cases and the drawing of conclusions any easier. A number of conferences and study of the literature resulted in the book ‘Evaluatie van Kantoorinnovatie, model en methoden’ [Evaluation of Office Innovation, Model and Methods]. A model of five components and their interrelation was developed: organisation, work processes, products, facilities and environment.

The meta-evaluation of alternative office projects showed that, in general, the objectives of office innovation are:

- Optimal fit between the built environment, the organisation and (changing) working processes
- Improvement of labour satisfaction
- Reduction of costs
- Presentation of an inspiring example
- Better understanding of new developments
- Stimulation of organisational change.

One of the other outcomes showed that workplace research was mostly ordered by CRE departments or initiated by academics with a workplace interest. Some evidence was found that economists, psychologists, physiologists and building physicists were actively involved in creating comprehensive and consistent models for understanding office work and its settings. They did not convince their hearers. This was considered rather strange, because all practical customer demands could easily be defined in those knowledge domains.

In order to create synergy, the Government Buildings Agency organised a two-day seminar for academics and professionals, with four goals:

- Sharing visions and know-how from various knowledge domains
- Developing a network for sharing and collaboration
- Developing an integrated workplace approach
- Setting up a new research agenda by confrontation of knowledge domains.

The agenda of the seminar was built up around a case study that was then considered by individuals from several knowledge domains.

The case study
Central Government decided on efficiency measures for regional offices. One of those is the regional office of the
health department. The management team got together and found out that an innovative office concept could save money. Some visits were made to private companies that took another approach in officing. The management team is now convinced that an integrated approach is necessary, but they have little experience with the integration of all aspects involved in the introduction of a new office. There is also a lot of debate within the organisation: the younger employees are enthusiastic, but others have more doubts about this new approach. There is a feeling that just changing layout and new furniture will not work properly. A new office layout relates very much to a new way of working. The management team therefore decides to set some objectives. The new offices should contribute to:

- Multidisciplinary teamwork
- Improving informal communication
- Creating transparency in internal processes
- Efficient space use
- Employee satisfaction.

A survey shows that 65 per cent of the employees are in favour of a new office concept.

The management team invites professional advisers from different backgrounds and asks them:

- What is essential in such a process?
- What are your three most important points?
- What are the possible benefits of a change in office layout or support services for your knowledge domain?
- What are the main risks?
- What do you think about the process so far?
- What is the best moment for you to leave this project?

The outcomes
A discussion leader invited everyone to respond and at the same time tried to frame and structure what was said. This resulted in comments on:

- The human being and the workplace
- The organisation and the workplace
- Technology and the workplace
- Coherence — the quest for an integrated approach
- A research agenda.

The following four subsections of this paper give quotations from the participants.

The human being and the workplace

In our daily (work) routine we adapt almost immediately to contingencies and regularities, both in time and space, in the environment. We also automatically try to fit ‘what is changing or new’ into our existing knowledge and capabilities. Thus our brain cannot function on its own; it needs our body and the environment. The brain can be considered as an environmental parasite.

Confronted with problems we always try those problem-solving strategies that worked out fine in the past on similar occasions, or we implement pragmatic variations. When these do not seem effective, we turn to ‘promising’ strategies that seem ‘to work at the lowest cost’; in this approach we rarely strive for the best. In other words, evolution tuned us for satisfaction and not for the best.

When you consider that ‘designers design for the best’, this is a tragic illusion.

We are all pilots in a space of unpre-
dictability, finding our way by virtue of ground control and all being ecologists, as we:

• Save energy
• Stay on the conventional paths
• Think handy is beautiful
• Mind the environment
• Beware of changes.

When the above-mentioned aspects are not taken into account in workplace design and change, projects will (eventually) fail.

Fatigue is a very functional state of mind and body. It allows us to manage our task-related behaviour. It would be good to take it seriously when designing workplaces.

Employee satisfaction is an interesting social measure. Shouldn’t we look at how people work: why do we have only two hands and not eight?

The organisation and the workplace

The debate shows that organisations have goals and people are limited; how do these two go together?

Before you start an innovative workplace project primary processes must be defined clearly. If the managers are not explicit, do not start.

Most of the goals of innovative workplace projects are ambiguous and remind you of a vague efficiency description. The message to the employees is: ‘Keep doing the same, but with less means’. This is the wrong message.

If ambiguity leads these types of workplace processes, it is very well understood that all kinds of environments for human interactions are created. The only way to reduce ambiguity is to communicate in an environment saturated with information.

What are the benefits, what are the costs? More interaction is OK, but how to solve the problems of concentration?

Technology and the workplace

What is the role of IT in workplace innovation and what in improving business results? The structure of the organisation is very much defined by IT. Form follows flow. This has to be applied to the workplace as well.

How can we make physical environments that are able to accommodate permanent change?

New technology is uncontrollable. The speed of change is very high; with almost the speed of light we receive e-mails, but are not able to respond to them.

The individual should be the central focus point in defining building requirements. Use IT as embedded systems for optimal design regarding climate, rest and contact/interaction.

Goals and means are getting mixed up when the architect plays his design role too early.

Coherence — quest for an integrated approach

The workplace is a subject characterised by versatility. Both the structure and the contents of the communication between all kinds of professionals involved ask for our attention. Professionals are usually fascinated by contents and some have serious problems with the exchange of ideas and opinions. Noise is an easy effect,
but can create great damage. What is the minimal corresponding domain that we should talk about? If we say that workplace thinking is dominated by organisational theory one should ask: how come? Perhaps buildings have something to do with production by people at certain places? What is constant, what changes? What are never-changing values? Ignoring those values happens too often.

We should take a benefit approach! What are the potential benefits of the innovative workplace for the individual, the organisation and society?

In the 1960s and 1970s we recognised the social system and the technical system. The debate was on joint optimisation. It was static (the workplace) and not dynamic (the workflow). The debate on workplace innovation seems to be static. What were the reasons in socio-technic design to take a dynamic approach? What can be learned?

The human being is the connecting 'element' between all knowledge domains.

FUTURE DIRECTIONS: TOWARDS A RESEARCH AGENDA

The domain of workplace design is characterised by ambiguity and complexity.

Every workplace innovation project is dominated by:

- Its uniqueness
- Values underlying the initiative
- Uncertainty.

Basic differences in knowledge domains could easily drive people into deeper debate; but the debate might be avoided. Broadening the horizon of the workplace professional can improve ‘tacit knowledge’. The significance of the following research questions is not obvious, but in the context of the development described above they are meaningful.

Coherence and collaboration

(1) How do we synergise the roles of workplace professionals coming from different knowledge domains?
(2) What is the role of the architect in managing complexity? Is his creative competence reduced by in-depth involvement in practical matters?
(3) How can customers express their role in terms of meaningful language and behaviour? What types of decisions are crucial in innovative workplace making?
(4) What type or types of common frameworks can help for customer and professionals?
(5) What is the meaning of organisational typologies in designing innovative work environments?
(6) What metaphors are used in communicating innovative workplaces, and what underlying assumptions do they express? What are the dominant images in workplace making and what are sensible alternatives?

Benefits and costs

(7) What typology of benefits and costs is relevant? What is the context of those measures?
(8) Can we express benefits in terms of quality of labour for individual, organisation and society?
(9) Can cost-benefit research deliver reliable generic results?
(10) If the workplace is a catalyst for change, what attributes of the organisation are influenced? What cannot be influenced?
CONCLUDING REFLECTION

The title of this paper reflects a dilemma: instrumental or creative? A lot of knowledge and creativity is often embedded in workplace tools such as evaluation methods, project descriptions, site visits and cost-benefit models (both qualitative and quantitative). Professionals own domain knowledge. With luck they have knowledge about more than one domain.

The expressed need for better understanding of the workplace might lead to instrumentalised rationality. This in itself can be the basis for measures that in reality prove to be ‘make-believe evidence’. Empowered employees will not let this evidence fool them. If the employee is allowed to speak, opportunities for change arise. They come not by control of unreliable ambiguous measurements but by ‘meaningful and supportive activities’. Leadership has to focus on permanent expression of the values of its employees and on matching these with the organisational values and goals.

Starting and stopping projects are both within the mandate of top management. If workplace innovation projects do not match with the values of the employees, they had better be stopped.

Where will the quest for a framework for workplace knowledge lead? Not to a final answer. Institutionalised reflection — interdisciplinary debates, border-crossings on mutual subjects — could be very fruitful. It proved to be valuable, at least, to internal advisers of the Dutch Government Buildings Agency. All participants of the seminar described above felt that their personal flexibility increased; most of them are now involved in a ‘state-of-the-art’ study on innovative workplaces.

As a result of the investment in knowledge development over the last ten years, the Dutch Government Buildings Agency decided recently to invest in a new multidisciplinary knowledge centre. This should be not only a place where people meet for producing research reports, but also the place where future experts and real property leaders can meet and grow in competencies that combine knowledge and creativity.

CONCLUSIONS

Workplace making is in desperate need of contextual approaches. Cross-cultural learning proved to be very helpful for the Dutch Government. Translation of case-based knowledge to their own culture and labour relations is essential.

In innovative workplace making there is a lot of copying of solutions. It seems to be better to optimise the existing workplace setting than to redesign on the basis of what has been seen elsewhere but has not been proved to be effective.

The application of workplace tools (eg reference material; satisfaction surveys) could easily distract from the real concerns. A sound diagnosis of the organisation is the first essential.

The need for better understanding defines the need for reflection. Setting up a knowledge centre, where people combine research with personal and group reflection, is expected by the Dutch Government to deliver or re-educate professionals who can help the organisation use the workplace not just as a static asset but as a tool in improving its role in society.

REFERENCES


(14) See ref. 12 above.
