Balancing Local Knowledge within Global Organisations through Computer-based Systems: An Activity Theory Approach

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Reference

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Background

Research project on ‘ICTs and knowledge communities in global organisations’
Relatively little work in this broad area
And much of it does not look carefully at non-Western contexts
I will address one case study only – that of GlobalPharma (GP)
Visited offices in the home country, Japan, India, China, Brazil
Theoretical influences

Interested in the global roll-out of information systems


 Achieved by (largely invisible) work on negotiations, work-arounds, tinkering

‘The real issue, we argue, is to analyse how global, never-perfect solutions are molded, negotiated, and transformed over time into workable solutions.’
Activity theory (Engeström 1987)
Third-generation activity theory
(Engeström 2001)
Principles for an application of third-generation activity theory

Historicity – pay close attention to the history of how activity systems evolved

Multivoicedness of activity – subjects and communities with multiple viewpoints

Contradictions – as a driving force for change

Expansive cycles – the opening up of new possibilities for expansive questioning and debate
The GP Case

Development, manufacture and marketing of prescription medicine, and pharmaceuticals generally

A key challenge is maintaining uniformity in how its product line is represented by the media, across diverse local sites

Global communications team (global, regional and divisional)

Need for information system to help coordinate and standardise across the whole team
GP and the computer-based knowledge sharing tools

Earlier system called Infotool for monitoring information flows – no user buy-in – created context for a more two-way knowledge sharing approach

We investigated a tool called ISX, an information system which offered information feeds, a media enquiry database, news portals, contact databases, e-mail and calendar functions

ISX was ‘rolled-out’ through installation and training via phone or in person (300 users by June 2004)
Example of multivoicedness of the activity system around ISX

Designers and central managers see system as two-way between central and local groups

But some local groups wanted help from head office but did not want to provide feedback

Quote from GP Brazil: ‘We need to think globally but I won’t have time to do my local job if it is imposed that we feed back everything (to head office). Global (HQ) should help us to act locally. “You have to do that” would not be the best way.’

In activity theory terms, the ‘potentially shared object’ of the activity systems in HQ and Brazil is contested
Example of contradiction as a potential driving force for change

Japan office used local internal Japanese database for communication with local media

‘Because local journalists only use the Japanese language, to translate material constantly is a slow process. It is additional work. So for us, the Japanese database is consistent and relevant to our local needs as hardly anyone here communicates in English’

Used ISX as required for communication with head office

In activity theory terms, the instruments used by HQ and the Japan office were different making the potentially shared object of two-communication problematic. This could have driven change towards change, such as integration of the instruments, but this did not occur
Expansive cycles

Would have implied bringing together people from HQ and local groups to discuss objects, instruments, contradictions etc. And to arrive at new definitions of what global-local knowledge sharing should involve.

Engeström (2001) describes an example of this ‘knotworking’ in the Finnish health system.

No concerted effort was made in GP along these lines.

Why? Strong hierarchies?

GP HQ staff member: ‘I am sceptical about technology features enhancing transparency and knowledge-sharing, when the people involved don’t want to share. We first need to build environments within the organisation in which people can trust one another and feel secure.’ (rules and divisions of labour in activity theory terms)
Some implications

Global initiatives such as that of ISX in GP involve significant time and resources.

Spending is authorised for hardware/software but often less on ‘softer’ issues through ‘expansive cycles’ or ‘reflexive design processes’ (Roland and Monteiro 2002).

Particular involving far-flung places such as Brazil and Japan.

And there are deep issues involving power/hierarchy/conflict which may inhibit knowledge sharing and knotworking.

ISX was not a ‘failure’ but its ‘success’ was very mixed.
Some other work on ‘global software’


Critique of this work from my viewpoint

Like the emphasis on the ‘biography’ of software packages such as ERP (or ISX) and the way that suppliers try to provide a ‘generic’ product and users try to accommodate tensions between that and local needs.

Like the term ‘generification’ to refer to this, and their emphasis on the need to investigate the supply side in addition to the demand side.

Does the work underplay power aspects e.g. which users get the most ‘say’ in generification and why?

‘Diverse organisations and standard technologies can be brought together’. Agree, but with what consequences for the organisations?

Little or no non-Western contexts?