

Activity system components		AGENT LEVEL	ORGANISATION LEVEL	CROSS-ORGANISATIONAL LEVEL
SUBJECT(S)	AGENTS WITH DIFFERENT LEVEL OF GRANULARITY	Stakeholder types (staff, customers, trainers, enablers etc.	Units in organisation	SMEs, organisations (business, academic, political)
COMMUNITY people as mediators of action	INFORMAL NETWORK (S)	Personal networks (mode, structure)	Informal organisational networks (mode, structure)	Informal cross-organisational networks (mode, structure)
	FORMAL NETWORK (S)	Formally required communication channels and chains (mode & structure)	Formal networks (mode, structure)	Unmanaged cluster or formal cross-organisational network. Managed cluster (mode & structure)
ROLES Roles divide tasks	INFORMAL ROLES	Status (expertise/competences, see if there are roles of novices, experts) trustworthiness/credibility), informally taken tasks etc. Activities done in certain role	Informal statuses of units, informal roles of units to perform tasks Activities done in certain role	Irregular, emergent, needs-based, (competitive, commensalism) roles and tasks Activities done in certain role
	FORMAL ROLES	Work positions, work tasks, enabler roles. Activities done in certain role	Official hierarchy (horizontal, vertical) in roles and tasks Normative fixed task-chains Activities done in certain role	Temporal, project-based roles and tasks. Permanent, regulated, service-based synergetic (value-chains, service-chains, motivation schemas etc.) roles and tasks. Enabler and coordinator roles. Activities done in certain role
RULES Rules coordinate, regulate, prompt tasks, restrict/permit roles	INFORMAL RULES	Informal rules (accepted behaviours, work-modes, motivation mechanisms) between stakeholders. Activities done as informal practices.	Informal rules (accepted behaviours, work-modes, motivation mechanisms) between units Activities done as informal practices.	Informal rules (accepted behaviours, work-modes, motivation mechanisms) among organisations Activities done as informal practices.
	FORMAL RULES	Formal rules (norms, permissions/restrictions, regulations, incentives for BYOD, user-generated content and informal learning), access/permissions to stakeholder roles. Activities done as formal practices.	Formal rules (norms, permissions/restrictions, regulations, incentives), access/permissions to units Activities done as formal practices.	Formal rules (norms, permissions/restrictions, regulations, incentives), access/permissions to organisations Activities done as formal practices.
TOOLS as mediators of action	SOFTWARE	Personal software, training for software/systems, acquiring software. For what is software used.	Organisationally required/used software, systems, training modes, acquiring software For what is software used.	Cross-organisationally used systems, shared training modes, acquiring software For what is software used.
	USER DEVICES	Personal devices, training for devices	Organisationally required/used devices, training modes	Common devices (and usage habits) across organisations, shared training modes
	ARTIFACTS	Types of artefacts (QA comments in forum, personal reflections in blogs, docs and papers in personal folder, collections of bookmarks, competence profiles, contact lists, shared docs and calendars etc.)	Types of artefacts (shared databases and repositories, official organisationally shared calendars, google docs or spreadsheets etc.)	Types of artefacts (procedure descriptions, cases, norms, expert commissions etc.)
	VOCABULARIES	Bottom up tagging and top-down vocabularies, taxonomies, ontologies in use of people	Bottom up and top-down vocabularies, taxonomies, ontologies in use of organisational system, maturing of vocabularies, taxonomies, ontologies	Bottom up and top-down vocabularies, taxonomies, ontologies in use of cross-organisational systems, maturing of vocabularies, taxonomies, ontologies
	INFORMATION SYSTEMS	Information system types (domain knowledge, competences, cases, people whom I know etc.)	Information chains, accumulated, associated knowledge structures (procedure descriptions, cases)	Information chains, shared knowledge structures
OBJECTS Goals	LEARNING GOALS	Person's learning goals Highlight problem issues.	Informal learning at organisation Highlight problem issues.	Cross-organisational informal learning Highlight problem issues.
	WORK-RELATED GOALS (at separate lines)	Person's work goals	Organisation's goals (data management, knowledge exchange etc.)	Different organisation's goals, competitive edge etc. Common goals (marketing, training, developing innovation etc.), synergy

Table 1: Activity system table (final version)