

Infra-settings

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Ethnomethods of Information Infrastructures

- **Infrastructure work:** how people theorise about the relationship among places and time, and rely upon these accounts to take further action and make sense of what is happening
- **Infra-setting:** the extended social space and time enacted by infrastructure work

What are Information Infrastructures (II)

Multiple interlinked information systems

- Open
- Interconnected
- Dynamically evolving
- Always shaped by the installed base

Infrastructuring, how to infrastructure, infrastructure work...

- similarly to Karasti & Baker (2004) “infrastructuring” concept, Bowker & Star (2002) usage of the term infrastructure as a verb - “how to infrastructure”, and Berman (2001) concept of “human infrastructure”, “infrastructure work” captures **infrastructure from the perspective of purposeful human action.**
- Differently from these authors, we **conceive infrastructure at the level of the broader field of technological work**

Where is infrastructure?

- rather than just describing what is **already social in information infrastructure** ours is a radical reflection about the **already infrastructure of the social** (infrastructure as a pre-condition for the social)
- While Star & Ruhleder (1996) pointed out that rather than asking “What is infrastructure?”, a more appropriate question is “When is infrastructure?”, we believed that in order to fully comprehend the analytical value of the concept a further question to be asked is: “**Where is infrastructure?**”

ERP project	Infrastructure Work	Where is Infrastructure Infra-settings
development	Infrastructural forms of accountability	making user sites the same
procurement	Infrastructural forms of reflexivity	making futures accessible
support	Infrastructural forms of indexicality	making context participant

Development

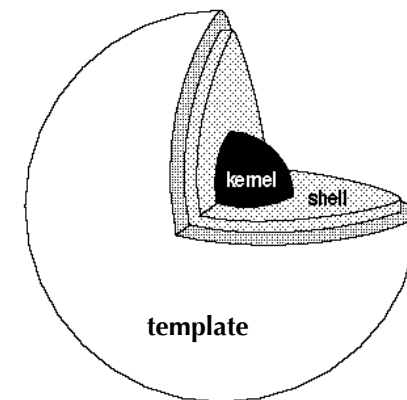
- The design of generic packages differs from earlier bespoke software development traditions
- Empirical study of ERP suppliers strategies to develop generic software (Pollock & Cornford, 2004; Pollock, Williams & D'Adderio, 2007)
- Vendors discouraging diversity among user organizations without making it a focus of conflict.

Development segmenting the user base

“Transactional customers don’t want to spend money. They want everything for nothing. For every day you put into them, you get nothing back. So you put your days into Consultative customers who want to work with you and spend with you. Whereas Strategic customers are all about people who help share the vision of where the product is going to go over the coming years.” (Excerpt from interview published in Author Study, 2007).

Development changing surface attribute

- a small but relevant component of the technology provided (the 'generic kernel') remains always the same in each occasion. While more superficial films (the 'templates') are adapted to the specific audience and serve to channel interaction with the specific audience.



Development User Communities

- Vendors encourage users to align their requirements into those of a user community to increase the likelihood that their adaptation requests will be addressed by vendors. Users need to demonstrate that their requirements are 'generic' and not 'particular', therefore they must search for similarities between themselves and other sites

Ethnomethods of Information Infrastructures

‘accountability’ applies to **accounts of all kinds** – immediate communicative expressions as well as post facto bureaucratic records – and refers to how we present and organize our actions while *anticipating* their reception by unknown, as well as specifiable, ‘auditors’” (Lynch, 2010: 928)

While in our case of vendors:

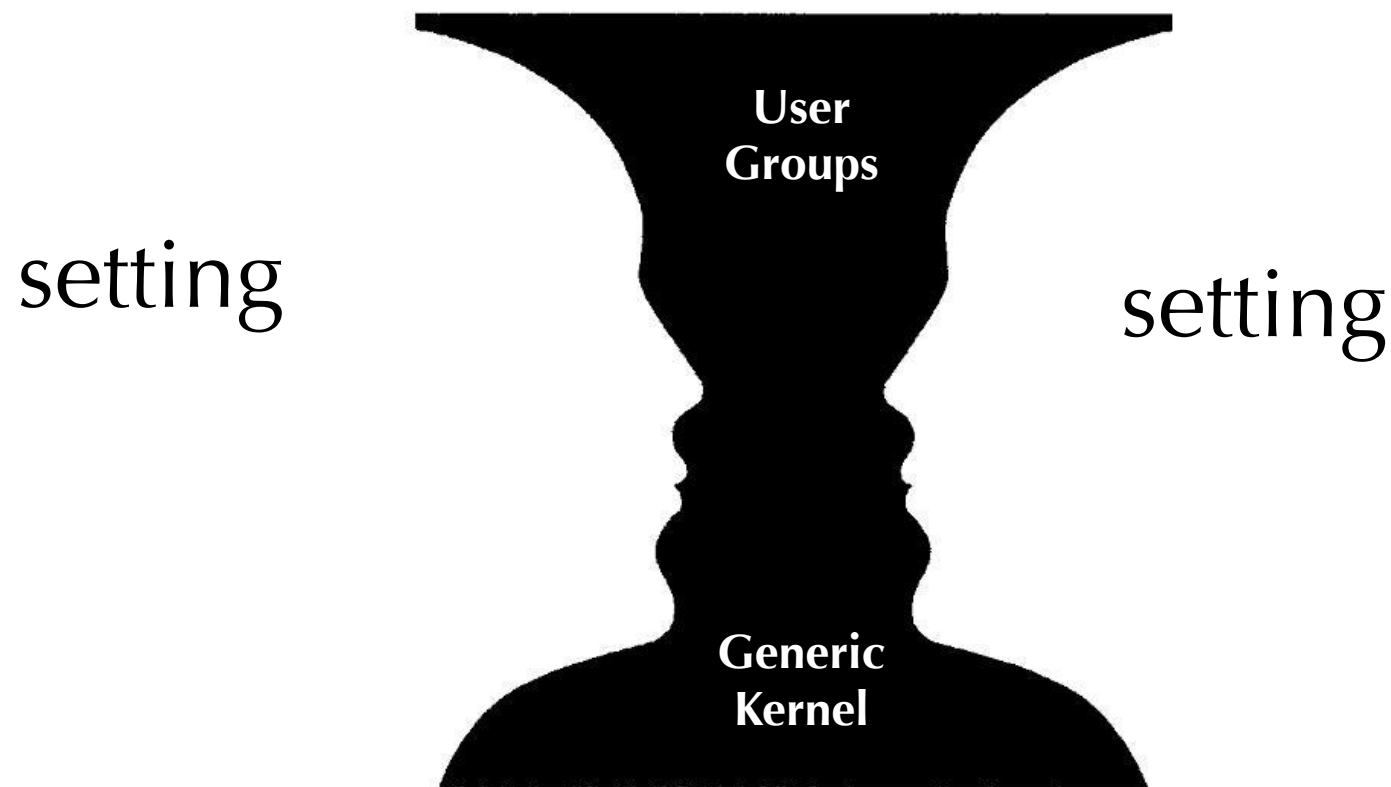
- accounts are of a specific kind
- accounts aren’t organized just by anticipation
- unknown and specifiable audiences are separated

How the social takes place

Infrastructural forms of accountability

- Extend the notion of *accountability* to re-specify the difference between:
 - immediate communicative expressions and heteromogeneity of ERPs (Quattrone & Hopper, 2006)
 - anticipation and management (active strategies: e.g. make requirements converge)
 - known and unknown audiences (e.g. segmenting the user base)

Where the social takes place: setting-to-setting infra-settings



Procurement

- One difficulty adopters face prior to purchase is they are assessing intangible issues regarding the future performance of technology vendors
- Empirical study of the industry analysts firm Gartner associates (Pollock & Williams, 2009; 2010; 2011)
- Analysts work entails address the varying degree of effectiveness of judgments by carefully managing the expectations they can create.

Procurement

changing degree of effectiveness of predictions

- “It is never forecast and forget. Forecasts are continually refined. So we tend to update ours once every 6 months. For some of more volatile areas it is once a quarter”.

(Unpublished excerpt from interview to Mitchell, an Industry Analyst)

Procurement

how changing effectiveness is managed

“some of you asked ‘What are some of your first years recommendations and strategic planning assumptions? What do they look like?’. Here is some of them from 1996. That’s really 10 years ago now:

‘By 2001 distance learning will be a mainstream activity on 80% of the campuses’.

How many of you think that one has come to pass? How many of you [very few hands raised].

How many of you think it hasn’t yet [many more hands raised].

Mainstream activity? Still not.”

Ethnomethods of Information Infrastructures

Account → Ratification → Objectivation

“...parties display a collective amnesia for their social work. [At this stage] the result of their collaboration are accepted by the parties as being independent of the contingencies of their production”

(Lieberman, 2013)

While in our case of industry analysts:

- a) It is never forecast and forget
- b) ‘the rational-adequacy’ of analysts findings is defined by the extent they are able to re-negotiate them at later times
- c) irrespectively of whether they already reached their audience

How the social takes place: Infrastructural form of reflexivity

- Extend the notion of *reflexivity* to re-specify the difference between:
 - a) kinds of reflexivities (weak and strong)
 - b) anticipating and active management (before and after the fact)
 - c) producer and user (it is not very clear when the producer ends and when the user begins)

Where the social takes place: present-to-future infra-settings

User

User



Producer



User

User

Support

- vendor support facility receives about 800, 000 calls for technical help each year. However, only 500 or so calls require a support specialist to actually travel out to visit a site.
- Empirical study of IT support specialists (Pollock, D'Adderio, Williams & Grimm, 2010)
- **Support specialists** work to give a failure message immediate and constant attention.

Support

forms of non-passing or wrong passing

- **Forms of non-passing:**

“Ah, that’s [user name]. They always put their message on high importance on a Friday afternoon even though it’s not. We can leave that until Monday” (Excerpt from fieldwork diary, Authors’ Study, 2009: 267).

- **Forms of wrong passing:** i.e. “ping-pong”

When messages were difficult or from ‘trouble’ users, programmers ping-ponged them back and forth and across continents , knowing full well that expertise might not be found there.

Support

finding the recipient ready to respond

- Users can set 'priority states'
- If availability is not ensured (e.g. a user not taking a support call from the vendor), the issue gets de-prioritized again.

Context providers

According to ethnomethodology, the usage of indexical expressions is “irreparable and without need of repair” (Lynch, 2011: 933). The user of an expression is always able to find and build a usable coherence by working with the *scenic and temporal circumstances of that expression*.

In our case of online repair:

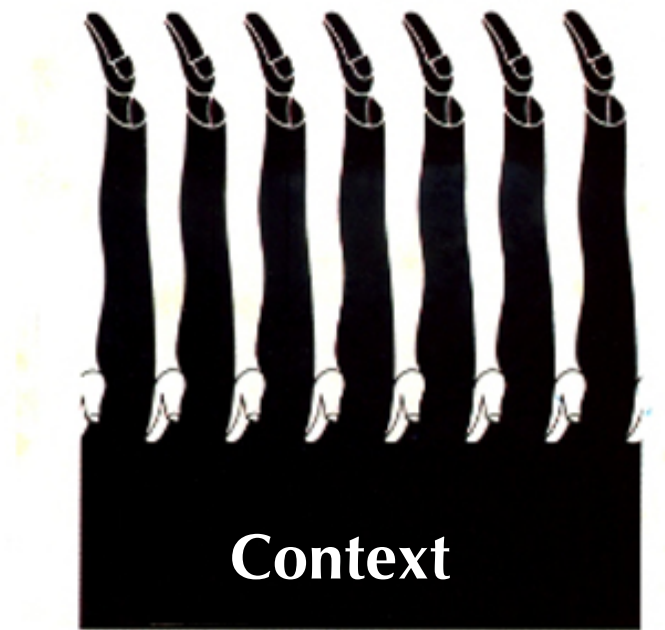
- to be build is not just meaning of an expression, but its scenic and temporal circumstances as well
- are literally ‘an interactional partner for participants’ (Knorr Cetina, 2009: 72)
- are not irreparable, but they require constant and immediate attention.

How the social takes place: Infrastructural form of indexicality

- Extend the notion of *indexicality* to re-specify the difference between:
 - Kinds of indexicality (unwanted or wrong indexicality)
 - Building a meaning and building a context for that meaning
 - Interactional partners and the 'context'

Where the social takes place: present-to-future infra-settings

Interactional Partners



The infrastructure social

- Seamless (not limited to self-confined “settings”, extended to in-between)
- Concurrent (not clear cut time-based distinction between user and producer)
- Utility-like (has organizational pre-conditions)