

ISM Research Project Workshop Activity Sheets

Activity 0

“**hospital.lity**, n. Friendly & liberal reception of guests or strangers; *afford me the h. of your columns*, put my letter in. [f. OF *hospitalité* f. L. *hospitalitatem* (as HOSPITAL, see -TY)]”

(Fowler and Fowler, 1929)

What words can be associated with, or convey the sense or meaning of *hospitality* to you?

Fill in the word grid below with these words.

Research theme: word associations

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Activity 1

For the text 'is it just me', highlight the personal pronouns used by Fergus. List the personal pronouns and comment on how they are used. You might consider some of the following questions: Whom do the pronouns refer to (speculate)? How are pronouns used in this text?

Text: 'is it just me?'

Fergus: Is pair programming accepted now (?) Has everybody bought into that (?) It's the one practice that I'm not sold on (.) I can see benefits (.) however (.) I'm nervous about it (.) things like personalities (.) things like people's programming habits (.) and people being people (.) It can be tricky (.) I'm just nervous about it (.) If it works I can see it being very beneficial, so does it become a matter of policy (.) Can you override it and say "no I don't want to pair program on this piece of work (.) I want to do this by myself" (.) would that be frowned upon because maybe some people would always want to work on their own (?) I just want to say that I'm a bit nervous about pair programming (.) is anybody else nervous about pair programming or is it just me (?)

Notes:

Commentary

The text 'is it just me' is selected from the transcript of a group discussion where nearly everyone working on the new product project is discussing the situation with adopting Extreme Programming (XP) practices in the software engineering team. Fergus reflects on the practice of 'pair programming' which his engineering team had agreed to do. Pair programming is considered one of the key practices of Extreme Programming (Beck, 2000). Pair programming is commonly regarded as Extreme Programming's shibboleth and it is an aspect that typically generates the greatest controversy among anyone debating the merits of XP, typically management, engineers, academics and others.

Fergus refers to 'everybody' presumably addressing the other software engineers (programmers) but he might also be including the wider group of people involved in production, the testers, professional services people, and product management, all of whom were sitting in and taking part in the discussion.

'I' and 'I am' (I'm) precede Fergus's most personal statements, declarations and feelings. He is fearful of being forced to do something, in particular an activity that involves working closely with others.

I'm just a bit nervous about pair programming

'Others' also feature prominently in the text; 'everybody', 'people', 'their', 'anybody'. The message appears to be that they all have a part to play, something to say, or some say in what happens with the practice of 'pair programming'. Fergus appears to allow that these others 'have a say' in the work of programming, even though the work itself involves:

"things like personalities, things like people's programming habits, and people being people..."

Fergus reminds us that programming is more usually considered to be a solitary occupation and the changes implied by using XP are really quite fundamental, they change the role of the individual, pushing them together, compelling them to share more, reveal more of themselves, make themselves more vulnerable perhaps.

Much of this text involves identification language, terms and ideas that highlight the individual's understanding of the *reality* of work in addition to beliefs and values surrounding knowing what constitute proper conduct.

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Activity 2

For the text 'I feel it myself', highlight the personal pronouns used by Niall. List the personal pronouns and comment on how they are used. Are occupational beliefs expressed by the speaker? Are occupational values evident in the text?

Text: 'I feel it myself'

Niall: Can we just come back to the pair programming and the task board (?) What I think about the task board (.) and I feel it myself (.) is that the engineers have a hell of a lot more autonomy now (.) In what they do (.) there is much less control about what we do now (.) we pick things off the board (.) ourselves and we drive them ourselves right through to the end (.) There is an element of control and management in terms of what we actually do is gone now which may have existed in a more traditional model (.) And I think what unit testing and pair programming does (.) it's a different kind of control (.) It's a control over how we do what we do (.) that we do it right (.) because without that (.) you can have a lot of mavericks (.) Not on purpose (.) they're not out to break the system (.) Essentially that's why they're there (.)

Notes:

Activity 4

Ciborra: Actors' commitments reflect different understandings

Ciborra suggests that the pathologies of systems development methodologies are themselves connected by a common failure to accommodate “existential dimensions, such as life world, identity and commitment.” (Ciborra, 1999: 194)

Table A "The old and new commitments in systems development" (reproduced from Ciborra, 1999)

The old commitments as dictated by systems development methodologies	The new commitments dictated by hospitality
Strong identity and advocacy	Define identity in a plastic way depending on the guest(s)
Enforce boundaries, standards, roles	Cross boundaries, test standards and roles
Be rational	Care
Seek consensus	Be the server
Be in control of the tool	Release control
Measure	Listen
Compare, learn and improve	Share
Be in control of unexpected consequences	Be open to mysteries and ambiguities (negative capability)

Code the following statements as evidence of either Ciborra's 'old' or 'new' commitments.

- "we deliver products in well known traditional time honoured processes"
- "it says so in the operating structures"
- "nothing gets done unless I sign off on it"
- "we need these formal sign-off meetings"
- "how do you know what you've got unless you can measure it"
- "the group decides for itself"
- "communicate through the interfaces"
- "throw it over the wall"
- "projects have their own logic"
- "people know what they're doing in the traditional approach"
- "we don't like uncertainty"
- "you've got to talk to the others before changing things"
- "it makes it personal, to take responsibility"
- "it's all about give and take"
- "by getting close to the customer"
- "I wasn't empowered to question"
- "to challenge and engage in the decision making processes around what it is they end up doing"
- "their engineers or end-users sitting beside my engineers in my offices"
- "groups need to interoperate, communicate and interact at a certain pace"

CASE: New Hanoi Technology 1994-2001

In 1993 Digital Equipment Corporation (Digital) closed its Irish assembly plants after 22 years of operation with the loss of 780 skilled jobs in Galway in the West of Ireland (Hillery, 1993). Rather than succumbing to the hopelessness of the situation after Digital's withdrawal, employees bounced back, due in no small part to Digital's innovative in-house placement initiatives and business start-up assistance, backed up by support from the Irish Government (Barry and Egeraat, 2008). In the wake of Digital's closure many former employees became entrepreneurs, starting up small successful firms specialising in computer hardware, IT services, software products, among other areas. The 'Digital network'¹ has since been credited with imparting a lasting positive impact on the Irish high tech sector in terms of relationships and business success over the years that followed.

New Hanoi Technology² was founded in 1994 to develop and market object oriented interface libraries (software) for the burgeoning market in internet enabled EDI services employed in the banking sector. High volume transaction processing systems of Banks and financial markets (Insurance, Stockbrokers, Credit Services) had become the engines linking financial markets with corporations and clients, and these links were gradually becoming fully electronic, real-time, and digitally integrated with each other. New Hanoi Technology (NHT) was the brainchild of two former colleagues who had worked together in Digital's Galway manufacturing facility. NHT created the first Open Standards based Prime Broker Suite, an interoperable FX Trading platform (Financial Message Bus) used by banks and brokerages (Buschman and Panourgias, 2005). The software they developed broke new ground by providing Internet enabled straight through processing with exceptionally low processing overheads and high transaction speeds, while generating necessary audit controls and from message events and tracing.

NHT started up from a core group of seven 'Digital mafia' and is to computer science Ph.D's from NUI Galway. Being ex-Digital, they resorted almost by reflex to using the Digital Development Process (DDP) to organise and order the software development life cycle. The DDP resembled the Rational Unified Process (RUP), a commercial system for managing large scale software projects. The fact that they used a documented software development life cycle gave them the required 'tick' in the checkbox when selling to big corporate customers. The DDP gave them a library of templates, which were useful for interacting and exchanging information with clients and potential customers (customer requirements, design specs, functional specs, coverage reports, qualification and validation docs etc). Unfortunately, in operation, the DDP was unwieldy, heavyweight costly and cumbersome. Interaction between NHT and its clients, or between groups within NHT as the firm grew, was characterised by the exchange of lengthy and ever expanding documents with associated formalities around change control. A system designed for large scale (large numbers of people), long scale (multi-year) engineering projects. Though initially useful and manageable when the firm was small (less than 50 employees 1994) became completely unworkable as they broke through the 100 employee mark (1998). The market they operated in was blue-chip corporates (multinational banks and financial services operators). But their industry was Internet technology, characterised by rapid innovation and technological change. Considering the tension is present within this operating environment. It was not

¹ The 'Digital Network', light-heartedly termed the 'Digital Mafia', is the phenomenon of former Digital employees providing mutual assistance, advice, references and information among former colleagues, even as they ventured into business on their own or dispersed around the globe.

² New Hanoi Technology (NHT) and given personal names are pseudonyms intended to maintain the anonymity of employees and the corporation, as agreed with the researcher when negotiating access to the case site.

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surprising that NHT's product delivery pipeline began to creak and break down. In 1997, product Release dates slipped by 3 months for the next version release of the Financial Message Bus, with development libraries mapping to Cobol, PL/1, C, C++ & Java. Porting activities across all platforms versions (Tandem, Irix, VMS Mainframe, Solaris, HP-UX, and Windows) slowed to a crawl and quality was suffering. Gold available (GA) releases were quickly followed with '0.01' and '0.02' patch versions to address bugs found after installation on client sites. Against this backdrop of product development wheel spinning and product quality concerns, customers continued to clamour for more features, more training, services and support. While the money was pouring in, NHT's product development labs took on the appearance of sweatshops. Projects became epics death marches in employees burnt out, ill health, absenteeism, and exhaustion set in. The only thing staving off the threat of high staff turnover was the dream of a stock market listing and cashing in your stock options.

Extreme Programming (XP) crept onto the scene in 1998, a radical, almost subversive, recasting of everything to do with software engineering (Beck, 2000). XP was launched onto the Irish software scene in 1999 with the visit by Kent Beck to Ireland and the support of early adopter firms and national agencies. Over the next two years a handful of Irish firms assessed and then switched to the new 'agile' (Highsmith, 2002, Poppendieck and Poppendieck, 2003) style of organising the work of software production, and it was in that period that the research that NHT was carried out. What made XP different from the DDP was that it wasn't prescriptive in terms of providing a detailed process, policies, procedures or structures such as documentation templates, life-cycle charts, and other management tools. Instead XP simply defined twelve key practices; Coding Standards; Small Releases; Metaphor; Simple Design; Testing; Continuous Integration; The Planning Game; Pair Programming; Collective Ownership; 40 Hour week; On-site Customer; and Refactoring. If you did the practices, you were doing XP!

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