HIGH PERFORMING BUILDING

Story starts 10 years ago.

First BREEAM Excellent Office Building in Sheffield

First Building with Zero Ozone Depletion Potential for all specified Materials

First 100% FSC with 100% chain of custody for all timber used, including site timber.

First building with 100% of refrigerants with Global Warming Potential of 5 or less.
HIGH PERFORMING BUILDING

First building to measure complete carbon footprint of construction process

First to leave instructions for complete disassembly at end of life.

Winner of 6 major sustainability awards.

Office of Government Commerce produced a 16 age case study as a High Performing Property.
WHAT DID USERS THINK?

What users said about it....

“Temperature is rarely at an acceptable level”

“Photocopiers, toilets, tea-points and printers are too far away”

“Why can’t we open windows for fresh air”

“Staff are sitting further away from their teams so you do not feel part of a team”

Very disappointed with the toilet facilities.”

Undertook a full survey of the staff
- 1 year before
- 1 year and then 2 years post occupancy
WHAT DID USERS THINK?

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What users said about it....

“Open office floors feel sterile”

“Restaurant too crowded”.

“Tea-points too small”

“FM are too slow in attending to our issues.”

“The Lifts not as good as old building”
POST OCCUPANCY REVIEW

The public notoriety attracted interest of University of Sheffield

Ida Monfared undertook the Post Occupancy Review as part of her PhD to review effects on occupants of BREEAM Excellent Buildings

Surveyed 1600 staff before they moved in, then on first and second anniversary’s of moving in.

Lots of interesting information

31% Users Dissatisfied

23% Neutral

46% Satisfied

Occupants thought it was AVERAGE.

This really did not make sense to us.
PERFORMANCE GAP?

Not on its own

Same or similar results in other Grade A offices

Even Schools and Universities

Everywhere, users have a story to tell of how the building they occupy could have been better if only someone had asked them what they wanted.
Construction definition of Performance

**In legal terms**

The accomplishment of a given task - measured against pre-set known standards of accuracy, completeness, cost, and speed.

In a contract, **performance is deemed to be the fulfilment of an obligation**, in a manner that releases the performer from all liabilities under the contract.

**Known Standards**

- Accuracy
- Completeness
- Cost
- Time

**Accomplishment of Task**

releases the performer from all liabilities
What users would prefer us to demonstrate is...

**Effectiveness**

The degree to which objectives are achieved and the extent to which targeted problems are solved

so while performance means “doing the thing right,

effectiveness means “doing the right thing”.
EFFECTIVENESS IS NOT AN EASY CONCEPT

Effectiveness is harder than Performance

It means users have to be involved...so there is a risk things could messy.

It means the rewards of doing it have to be more compelling than the PERFORMANCE status Quo
Effectiveness is harder than Performance

It means designers have to be allowed to make a real difference for users.

It’s more than just becoming a “gun” for hire.

It means understanding the users problem at a deeper level….even an emotional level.

“Emma” Simon Reeves Bix Fix - BBC
PERFORMANCE V EFFECTIVENESS

Performance

• Drawings Specs, Instructions

Says what happens if things go wrong

A technical based understanding of what the final product looks like

Traditional Process PM orientated approach

Effectiveness

• Based on open discussion and collaboration

Says what would happen if everything went right

A collaborative understanding of what the end result would behave like through the release and revelation of ALL stakeholders (users and designers) knowledge bases

User Orientated Approach
APP DESIGNER

Using traditional PM framework, he designed an App for a Instant Messaging with 3d emojis. He personally wrote 25000 lines of code for the UI.

Found after 12 months development on time on budget, no one wanted it. He could not believe it.

What he thought the customer wanted was completely wrong.

Looked for the minimum effort they would have needed to put in to the product to test it with users and get the same customer intelligence.

Turns out all he needed to do was write a splash screen followed by a 404 screen 10 mins tops.

Eric Reis – Software Code Writer, Entrepreneur
AGILE MANIFESTO

Individuals and Interactions over Process and Tools
Working Product over Comprehensive documentation
Customer collaboration over Contract Negotiation
Responding to change over Following a Plan

“Over” but not “instead of”

Eric Reis – Software Code Writer, Entrepreneur
AGILE METHODOLOGY

USER IDEAS “LIKES”

PRODUCT BACKLOG “BIG PROBLEMS”

TEST WITH USERS

SCRUM

SHIPPABLE PRODUCT

TO DETAIL DESIGN

RIBA STAGE 0

RIBA STAGE 1 and 2

Agile Methodology
COMMON UNDERSTANDING

User Stories

Setting a structure
Developing Content
Understanding the issues
Generating buy in and Engagement
Feeding in Crowd sourced data
But giving back responsibility for financial, practicality and programme aspects of the project
Think how (process) and why (desired outcome) before thinking about what (building or design)
GOING BACK TO USERS?

Topics could be to get users to brainstorm....

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THEMES COULD BE STRUCTURED

Concentric Spaces

• Procedures
• Technology
• Desk
• Room
• Floor
• Building
• Locality
• City

Emphasise

• Ownership
• Self Managing
• Some Discussion
• Some Research
AGILE METHODOLOGY

IDEAS

COMMEN THEMES/STRANDS

TESTING

SCRUM

USEABLE PRODUCT

Charrette

RIBA STAGE 0

RIBA STAGE 1 and 2

Agile Methodology
SPRINTS

Objective is Sprint Team to develop a working solution that is acceptable to the wider business.

One Sprint Team per themed set of challenges or problem

Iterate and refine the design until the solution is accepted.

In budget and on programme. All done face to face within an allotted time frame.
LAYE... WITH A HEALTH AND WELLBEING COAT

Reinforcing Health and Wellbeing in design

Encourages movement

Introduces calming features such as plants and water

Fractals and patterns that encourage curiosity and wonder

Being open to the social context of the building and providing opportunities for socialising away from the work face.

Reinforces messages of an environment that cares for users wellbeing.
WHERE ARE WE NOW?

First live project up and running now. Second in discussion. Third we are thinking we would like a health project still to be identified.

Bids in with CIBSE and Innovate UK to fund post occupancy research to get the metrics from each of the 3 case studies to proof of concept. —Decisions imminent.
EXPERIENCE SO FAR

• POSITIVES
  • Ask an individual what they want and the ask will be for a quantitative improvement to their environment or equipment.
  • Ask a community what they want and the response will be to ask for qualitative improvements to how things get done.
  • Agile binds communities to seek betterment for the common good of the group.
  • Reverses the direction of design creativity axis. User ideas percolate up instead of having designers ideas cascade down.

• NEGATIVES
  • Most Hierarchical organisations are resistant to change. Ideas about what should be done going from the bottom up is not a good direction. Encountering change management issues.
SUMMARY

Our industry has performance gaps

But it has even bigger user “effectiveness” gaps which exaggerate the performance gap

Users want buildings that help them do what they do. But better than before.

But there is a market failure which prevents this from happening

Agile might be a way to solve it.

If we do... the rewards are potentially greater for everyone, developers, owners, operators and users.