Une approche globale pour la conception d'un logiciel innovant: les sciences sociales en amont d'une solution opérationnelle pour les centres d'appel

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The Call Centre Environment
High Level Description of Call Centre Work

• Calls arrive through a queue that agents are assigned to. In most contact centres the calls are connected automatically.
• The agent is then expected to handle the call in a certain amount of time (on average):
  • Call volume varies but in a customer care contact centre agents can take around 70 calls in a shift.
• The floor is structured around a rigid hierarchy:
  • Agents are grouped into teams of 10 to 15 workers; each team has 1 supervisor;
  • Teams of supervisors report to Operations Managers, who report in turn to an Assistant General Manager and a General Manager.
Data in the call centre

- Agent activities are logged by the phone switch, and averaged and aggregated into Key Performance Indicators

Qualitative data is captured through Customer Satisfaction surveys and through reduction or break down of interactions with the customer to standardized or normalized categories that are coded and scored.
The motivation for a new application

• Xerox Services runs many call centers through its customer care branch.

• Call centres are high pressure environments where:
  - Performance KPIs value is unknown by agents
  - With no coaching and no performance awareness, agents have a tendency to aim for the bare minimum, impairing call centers performance.
  - With low motivation and team spirit, a high turnover impairs even further the centers performance.
  - Virtually no time is available for feedback and coaching aimed at agents from their supervisor.
Project Timeline

2011  Q1/11  10/11  02/12  08/12  09/12  Q4-12  12/12  04/13  07/13  09/13  12/13  2014

- WPT Studies
- Design
- IP AgentVILLE
- Prototype US
- IP Gaming
- UHCN Interest
- Industrialization
- UHCN V1.0 Prod
- Gamification
- XL World v2.5 prod
- HRS v3.1 prod
- RCCL, Verizon
- Gaming Experiment US
- Gaming Validation UHCN
Agentville research

Research had been undertaken on this issue by the **Work Practice Team**

→How to increase performance by increasing agents awareness and motivation?

Published work, for example in a major conference: **COOP 2012**
What is Agentville for?

• Providing agents with real-time visibility of their performance
• Enable real-time interaction between agents and team-leaders
• Enable team building through team competitions
• Enhance agents feel to belong to a team
Design Phase

Q1 2011: First Design sessions

Work Practice Team + Advanced Development Lab
Prototyping PAM

“Performance Awareness Mechanism”

- Late 2011 / early 2012, feasibility study and prototyping work

Advanced Development Lab

→ First deployment of functional prototype at Sprint call centre in Portland in February 2012

- Addition of gamification principles

IP in Aug. 2012:

“System to support contextualized definitions of competitions in call centres”, S. Castellani, T. Colombino, and B. Hanrahan

→ Protection of the competition aspects
Business interest

• Xerox Services Europe roles
  • Prototype refactoring
  • Deployment
  • Maintenance
  • New developments
Industrialization

- Sites Infrastructures
  - Various infrastructures (App-V, Citrix, Terminal Server)
  - Hand in hand with sites IT

- Numerous versions
  - Numerous iterations create new UI (Mini Widget and System Tray)
  - First version deployed in December 2012
  - Gamification introduced in April 2013 (NCCA Award)
  - Latest version deployment in December 2013
Learning from the field

Field feedback extracted by Work Practice Team and Advanced Development lab

- Reports from the field helps for new features
- Constant reporting from field to research
- New features implementations with research overview
Adoptions

• CBPO Europe North (UHCN) located in Netherlands, Belgium, Turkey & Surinam
  • Final clients: many…
  • Domains: Medias, e-Commerce, Tel & Internet company, Finance,…
  • 1500 users (and growing)
  • XAPI Award helped win new deal
• CBPO Europe South(XL World) located in Romania
  • Final Client: …
  • Domain: Finance
  • 40 users (and growing)
• HRS located in Spain and Romania (In Progress)
  • Final clients: …
  • Domain: Engineering, Accounting
  • 100 users
NCCA Award in 2013

- XAPI won the 2013 National Contact Center Award Innovation Award in Netherlands.
On-site survey and impact evaluation

• On-site qualitative survey (Q4 2013)
  • Observation of XAPI adoption and integration in 2 contact centres
  • Interviews to obtain direct feedback
  XAPI has become an essential tool, increasing motivation in agents and freeing productive time for managers.

• Quantitative impact evaluation (Q1 2014)
  • Statistical analysis of call centre activity logs
  • Over a period of time including before and after XAPI deployment
  XAPI adoption induces a significant enhancement of typical KPIs such as call duration
Growing adoption around the world

LOB
- CBPO Europe
- HRS
- RTLL
- HROS

USERS
- Live: 1850
- Deploying: 1000+
- More to come: 3000+
- Potentially: 55k
In a nutshell…

- Real-world need
- On-site ‘ethnographic’ observations for deep understanding of pain points
- Application’s design (functions, structure, aesthetics, ethics) is deducted, in collaboration between SHS team and IT team
- Many development and validation cycles between teams (mutual enriching each other)
- Discussions with business users include SHS team and IT team
- After deployment onsite assessment by representatives of both teams

→ Strong success from sound and deep studies for grounding innovation

→ But a long twisted process that does not come cheap!
Work Practice Technology
What is work practice research?

Work Practice Studies (WPS) are the disciplined, detailed study of the organisation of work (but also of play, and of life at home)

- It's all about understanding how people interact with each other, with the rules and bureaucracies of their workplace, and with the technological artefacts and information systems they use

Work Practice (or ethnographic) studies involve observation of the work as it unfolds

- Brings an understanding of what people really do in practice
- Shows how people understand and reason about their work
- Reveals how organizational culture plays out in practice

“What people say, what people do, and what they say they do are entirely different things.” - Margaret Mead
Work Practice Technology (WPT): WPT (multi-disciplinary) research can help us use innovation to capitalize on human expertise by:

- Providing data in intelligible ways → inform people to act better
- Giving workers power to do their work → use enhanced resources to deliver more
- Developing skills → better talent leads to better results

WPT (multi-disciplinary) research can help us use innovation to understand and question core business and organizational practices by:

- Giving research direct access to the technology infrastructure → reveal features of the infrastructure that are not directly available to observation
- Helping us understand the priorities of the organization → understand why the organization and technology is compromised in certain ways
- Asking important questions → e.g. practical and ethical consequences of the organization of work
We observed a number of practical problems and workarounds in the call centre.

But we did not understand the real limitations of the underlying technology infrastructure until we probed it with our prototype.

The multi-disciplinary approach to a relatively simple technology allowed us to:

- Document the emergent consequences of strategic choices in infrastructure development and the organization of work;
- Question certain ethical aspects of the current core business model;
References


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