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# The Disruptive Office: Mechanised Furniture to Promote Useful Conflicts

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**Abstract.** This exploratory project investigated the counter-utopian view that conflict can be used as a tool for innovation within collaborative groups. A series of proposals for disruptive office furniture embodied emerging ideas about innovation through conflict. The proposals for Disruptive Office Furniture offer an exaggerated viewpoint on solutions that actively promote innovation and collaboration. They are devised to be brash, outspoken, and confrontational whilst initiating discussion on what tools for innovative work environments may be.

*Keywords: Interaction Design, Collaboration, Conflict.*

## 1. Innovation through conflict

Changing work practices are significantly altering the needs of the knowledge worker. Conventional technology, furniture and architectural solutions often cater only to ‘mass’ demand, leading to products and services that are undifferentiated for the increasingly diverse workforce. Focusing on more idiosyncratic needs and functions can produce new views of interaction design possibilities.

For instance, when considering collaborative working systems the usual assumption is that people who work together get along well and follow compatible paths and directions in order to achieve common goals. In reality the situation can be quite different. A recent study at Lotus research, for instance, investigates ‘adversarial collaboration’ [1], examining situations where people work together from opposite interests, with very different goals. These include the many situations (from unions and employers to legal firms involved in litigation) in which parties with opposing goals have to reach compromise agreements even though their aims, methods, and motivations are completely different.

Conflict may not only be inherent to a situation, but may be actively pursued. It is common to see large Blue Chip companies turn around economic decline by making sweeping changes in

their workforce. Beyond the obvious economic advantages, such changes bring opportunities to rethink strategies and working practices that may be of benefit. In a less violent manner, other forms of behaviour once thought antithetical to efficient work are beginning to be embraced. For instance, the thought of actively promoted gossip in the workplace would once have been viewed as recipe for disaster. Now many forward thinking companies have realised that this form of communication is in fact an essential tool within the organisation. Recent studies have shown that gossip at work plays a vital role in the initiation and maintenance of social relationships [2]. These studies have also shown that gossip can be a constructive means of expressing and managing emotion – anger, envy and frustration towards a colleague or situation may be expressed as gossip, which acts like a pressure valve to let off steam [3].

“Find some Happy People and Get Them to Fight”

Robert Sutton offers the above advice in his book *Weird Ideas that Work* [4]. His suggestions range from encouraging people to defy their superiors, to hiring people that you don't think that you will get along with, even people you dislike. *Weird Idea #5* promotes the theory that if you want people to innovate, then you need these people to disagree and argue over ideas. Sutton argues that supporting and encouraging conflict within a group encourages new ideas to emerge and thus promotes innovation.

In the work reported here, I investigate Sutton's suggestion both to reflect the reality of adversarial collaboration, and to encourage conflict as a route to innovation. This work was carried out as part of the Niche Working Project, funded by the Royal College of Art as an exploratory spin-off of the U.K. Equator IRC. Over a period of several months, I used a variety of means to explore collaboration at a distance, with my focus turning towards conflict as the result of my investigations. In this short note I focus on initial design responses to what I have found. In particular, I describe electronic furniture that supports and encourages collaboration through conflict, allowing notions of secrecy, political manoeuvring and discovery to become key terms in a speculative office system.

## **2. Disruptive office furniture**

Disruptive Office Furniture offers a range of ideas that seek to open a design and narrative space surrounding the priorities of day-to-day office furniture. The designs offer an alternative to the ergonomic and efficient installations common to virtually every modern office building.

They aim to suggest that conventional solutions for office furniture and architecture can actually inhibit rather than promote innovation in the workplace. (Offering solutions that promote activity, discussion and conflict.)

The proposals for Disruptive Office Furniture offer an exaggerated viewpoint on solutions that actively promote innovation and collaboration. Some are intended to be deliberately infuriating to the individual, highlighting ignored tasks or prompting the start of a new one. Others seek to cater for group working, playing to the strengths of sharing and co-operation, whilst some aim to draw attention to often forgotten or ignored facts, like the cost of a meeting per second of the personnel attending.

The Flipper Desk (see Figure 1), for example, is a suggestion for a workstation that physically ejects forgotten or ignored paperwork in order to highlight the need to take action. The desk incorporates a weight sensing technology that can identify and track the location of paperwork [5]; this information is used to automate the decision process of how long work can remain on the desk. Flip-up paddles embedded in the surface of the desk engage in choreographed sequence, creating a wave that lifts and sweeps the loitering item to the edge of the surface and onto the floor.

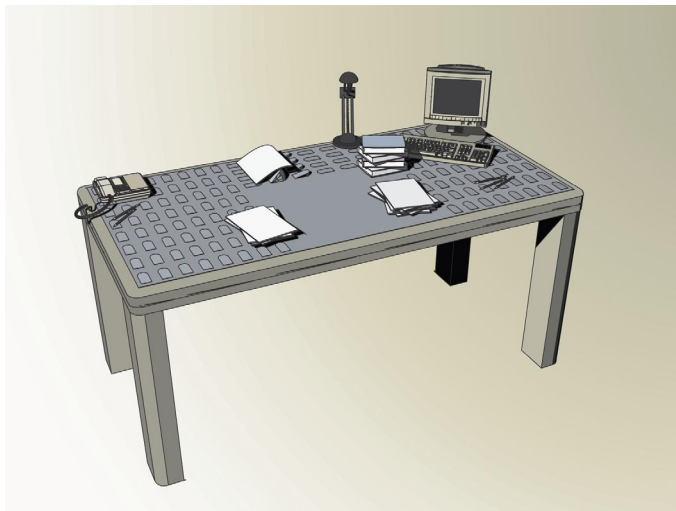


Figure 1: The Flipper Desk

The Meeting Cost Counter (see Figure 2) retrieves information from employees' electronic security cards in order to identify the people attending the meeting. This information is used to extract salary details from the payroll database in order to calculate the cost per second of

meeting (including overheads). This information is then displayed on the circular screen mounted above the meeting table, which updates every second.



Figure 2: The Meeting Cost Counter

Some of examples do not rely upon technology to function, but use their physical design to promote sharing by forcing co-operation. The Shared Drawer (see Figure 3), for instance, is a single drawer housed in a double face-to-face workstation. The drawer can be accessed from both ends, but is longer than it's housing in the desk and so it can never be fully open or closed to both users at the same time. This proposal seeks to promote compromise between the two users, who would have to frequently negotiate the drawer's state.

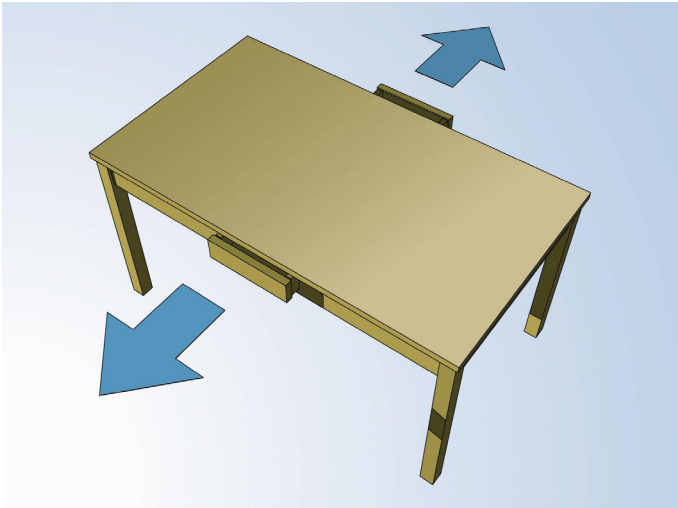


Figure 3: The Shared Drawer

These proposals are devised to be brash, outspoken, and confrontational whilst initiating discussion on what tools for innovative work environments may be. Currently they take on a

cartoon-like exaggeration of function that is not necessarily representative of realistic proposals – indeed they are sometimes impractical. However they are devised to question the conventions of the office environment and its tools and begin to pose new ideas that will inform future study. They serve as a starting point for a deeper exploration of subtlety disruptive furniture, and can be used to provoke discussions with collaborators, clients or potential consumers.

### Acknowledgements

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### References

- [1] Cohen, A., Cash, D. and Muller, M. Designing to Support Adversarial Collaboration. CSCW 2000: 31-39.
- [2] Hope, J. A gossip is good for business – pssst...talk in the office can boost staff morale. The Daily Mail, 5th January 2001.
- [3] Hilpem, K. It's good to talk: workplace chat has positive health benefits, says a new study. Office Hours, The Guardian, 12th February 2001.
- [4] Sutton, R.I. Weir Ideas that work: 11 1/2 Ways to Promote, Manage and Sustain Innovation. London, Penguin, 2001.
- [5] Schmidt, A., Strohbach, M., van Laerhoven, K., Friday, A. and Gellersen, H. Context Acquisition Based on Load Sensing, UbiComp 2002.