# The Business Case of HCI

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## 1 Introduction

Human-Computer Interaction (HCI) has been in existence almost as long as the discipline of software engineering. Yet HCI is still perceived in industry as a cost factor or a "nice to have" and more marginal than other software engineering activities (Bias and Mayhew, 1994). Companies often look for an HCI "rubber stamp" to assure themselves that their product is usable but are still resistant to involving HCI at all stages of development. This has been the same throughout the history of HCI. Why is it that HCI has matured as a discipline but has made little in roads into being accepted as mainstream in the industrial process of development? Why is it so easy to ignore or sideline HCI as something that is nice to have if the budget can stretch to it? Can we, as HCI practitioners, justify our existence in the commercial business model of a company? It would appear that, as a discipline HCI still lacks a way of marketing itself as an essential asset for the business community.

The success of a business is largely dependent on the efficiency and effectiveness of its operation. Its language is bottom line profit. HCI can easily be perceived as too complex, expensive and time consuming (Nielsen, 1994) to be economically viable. For example, the successful integration of a fully fledged HCI process into the Australian Telstra's GUI development methodology several years ago (Lindgaard, 1996) was ruthlessly scrapped once the organisation decided to outsource all its software development and the top manager who had been the Human Factors advocate on the Board of Directors left the company (Lindgaard, 2001). Despite having produced data clearly demonstrating that the usability problems associated with one core system alone cost the company a cool annual $30 million, the HCI program evidently fell into the category of unnecessary 'fluff'.

In a software development project, the tangible costs of developing systems are accounted for with little thought of any subsequent costs that may be incurred beyond the project's closure. These often counterbalance the cost of the HCI activities.

Good usability can be translated into reduced training costs, increased productivity, reduced customer support costs, higher customer satisfaction, a more positive brand image, and, ultimately, higher profits. These factors have graced many a business justification for carrying out HCI activities. However, published evidence of this operationally is sparse. One such example is Xerox's success in integrating industrial design and HCI, which changed their losses into a recovery worth over $1 billion (Wasserman, 1989). There are undoubtedly other success stories attributed to HCI out there but they are hard to find.

A successful 1-day workshop on this topic was conducted at CHI 2002 (Lindgaard & Millard, 2002). We want to build on its results and move

forward to produce effective material that helps HCI practitioners to convince their employer/clients that HCI is a must for every technology company and that usability engineers are a necessary part of every product development team.

## 2 Objective

In this workshop we want to produce a model of a business case and associated messages that persuade the product planners, the CEO, and the head of development of a company that HCI is essential to their business.

## 3 Organisation & Duration

### 3.1 Organisational Roles & Results
The workshop organisers will act as facilitators for the discussions, and will take notes to develop a poster communicating the workshop results to INTERACT 2003 participants.

### 3.2 Schedule of Workshop Activities
09:00 – 10:30 **Session 1**: Introductions; Review CHI 2002 workshop results and participants' case studies to identify critical input to a business case
10:30 – 11:00 Morning Break
11:00 – 12:30 **Session 2**: Analyse critical factors of a convincing business case (working groups)
12:30 – 13:30 Lunch
13:30 – 15:00 **Session 3**: Compile the material into a convincing HCI business case
15:00 – 15:30 Afternoon Break
15.30 – 16:30 Continue session 3
16:30 – 18:00 **Session 4**: Wrap-up, finalise poster

## 4 Target Audience

The workshop is aimed at HCI practitioners, although academics with relevant experience are welcome to apply. Participants should fulfil one or more of the following criteria:
a. Bring their own HCI success stories that have probably not reached the HCI literature
b. Bring their own major HCI disaster stories
c. Work in companies in which HCI is integrated into development procedures

d. Work in companies in which the integration of HCI into development procedures is progressing
e. Are successfully applying HCI cost/benefit/ business value models to their work already
f. Have developed and applied one or more quantitative cost/benefit/business value models that are not written up
g. Have insight to share on the topic

In addition, we will aim to select participants who represent companies varying in purpose (e.g. manufacturing, telco, services) size, and type of product (internal systems, consumer products).

## Acknowledgement

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