

Empowering consumers with usability certificates

ABSTRACT

User interfaces are bad and not getting better. Users would be empowered by *usability certificates*, so they could make informed choices when purchasing complex equipment, and hence apply market pressure to improve quality. A clear labelling scheme is required to enable consumer action.

Keywords

User empowerment, usability certificates, consumer interfaces

INTRODUCTION

Although usability problems with consumer interfaces are well known, manufacturers still make very awkward devices. We assume this is because consumers are unable to bring pressure to bare onto manufacturers to improve quality; they cannot do this because user interface quality is not obvious at the point of sale. Indeed, gadgets have demo buttons and features that confuse users [1], implying manufacturers are working *against* usability to improve sales.

It is impossible in the short time in a store for a consumer to evaluate complex devices like VCRs for usability. We must therefore find ways to help users-as-consumers, by providing evaluation reports of equipment, or low cost trials (e.g., web animations of products). This paper proposes certifying for standards of usability.

TYPICAL CONSUMER USER INTERFACES

Elsewhere we have discussed similar issues with faxes [4], microwaves [8], calculators [5] and car radios [7] (which raise ethical issues [6], since they distract drivers). Bad user interfaces are not just a domestic issue: the same style of interface can be seen in power stations and airplane flight decks. Bad interfaces lead to errors, and in large systems to *normal accidents* [2]. Our work has shown that many devices have *elementary* usability problems which end-users should know about.

One of us recently purchased a 1999 VCR. The remote control keypad has been designed in a way suggesting usability was a low priority. It has a set of ten digit keys, 0–9, but when setting the time for a recording they do not work. Instead, the time has to be set using arrow keys. Why does a user interface that requires numbers (e.g., 1030) and that has a numeric keypad, not use it?

On the second week of owning the VCR, channel 1 disappeared; the TV screen went blank. We assumed this was a tuning problem (children might have retuned the channel so it would not pick up a signal). The VCR has a menu for tuning channels, but it was disabled when the VCR was tuned to channel 1! We resisted phoning the costly helpline, and eventually found that it was possible to retune the blank station if the tuning menu was selected after the VCR was first tuned to *another* channel.

Surely consumers should be aware of such potential problems before they take a product home?

WAYS OF EMPOWERING USERS

Many consumers find their purchases frustratingly unusable and baffling, but if consumers insist on usable products, manufacturers will have to respond. We therefore propose some methods to make usability a tool for consumers, to help them make purchasing choices:

Usability testing Consumer organisations like *Which* (www.which.net) test consumer electronics. *Which* provides consumers with empowering information to help them make effective decisions. As

well as comparing features and costs they have an ease-of-operation score (based on a qualitative user evaluation) for devices. Such testing should be encouraged and the sophistication of usability measurement improved.

Usability ratings Buying consumer electronics can be an overwhelming experience. Confronted by row upon row of choices it is difficult to know what to buy. Our own recent experience is a good example. When we went to buy a VCR, there were about 50 models on display in the store. We chose to buy the cheapest, since there was nothing that we could easily distinguish; for example, the cheapest Sony VCR was over twice the price — but what does one get for double the price? The salespeople could not help.

Purchasing wine is also a complex and fraught process. In the USA there is a popular way of rating with wines given a single score out of 100. Another recent initiative for selling wine has become very popular in the UK. Wines are marked with their style and their units of alcohol. We should agree similar simple standards for usability rating.

Users could look for the rating to help them decide two things: (i) is this a good interface (am I going to be able to use the device without getting angry, frustrated and disenfranchised)? (ii) will this interface suit me? Just as wine can be recommended for, say, fish and pasta, user interfaces should be recommended to match typical requirements (“dish”) of the user. Some users will prefer or value different interface features — some will want a really straightforward interface made possible by a reduction in system flexibility, while others will see themselves as aficionados and will be happy to trade robustness/learnability for an interface that gives access to customisability/complexity.

Demos on the web Demonstrations of gadgets on the web can be ‘tried out’ in the home and, if desired, over a period of time. With such demonstrations, users will not have to wait until getting the device home — when it is too late — before discovering that it is unusable.

CONCLUSIONS

Usability engineering is not influencing industry. We have known for over a decade that VCRs have awful user interfaces, yet little progress has been made. Even if progress is being made by some manufacturers, worse manufacturers benefit by concealing usability problems from users as long as possible, and at least until after the device is purchased.

Consumer action can be empowered by *usability certification*. To find which methods work most effectively will require further research to discover and perfect; possibilities include certificates like the UK system used for labelling wines, and for web-based simulations and usability (rather than conventional feature) reviews.

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