

Bottom Line Benefits of Usability – A Sample

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Many of the business goals of software applications (traditional or web-enabled), intranets and public websites can be addressed by applying usability engineering during the development process. Some brief examples follow. For much more detail, see Bias and Mayhew, 2005, *Cost-Justifying Usability: An Update for the Internet Age*, San Francisco, CA, Morgan Kaufmann Publishers.

Increase Low Website Conversion Rates

Many e-commerce websites fail to reach the business goals that would have cost-justified their development because a lack of basic usability means customers can't find the products they want, can't get the product information they want, and/or can't successfully complete the checkout process on-line. A usability engineering program that **increased the buy-to-look ratio** on an e-commerce website by **1%** of its **current monthly traffic of 125,000** with an **average product profit margin of \$10** **would increase revenue by \$150,000 in the first year alone**. This could easily more than pay for the usability engineering program in the first year, and then generate significant increased revenue going forward.

Capture/Maintain a Competitive Edge

In the past, desktop software vendors competed for product sales by increasing functionality, performance, reliability and support, and decreasing cost. In today's market however, an additional aspect of software has emerged as a dimension of competitive edge: the usability of the user interface. Suppose the **profit margin** on a software product was **\$100**, and **2,500 more units** would be **sold** if the user interface was more competitive. **This additional usability would then be worth \$250,000**, which would more than pay for the usability engineering program.

Competition for market share is even more intense in the case of **websites**. Assuming the same products at the same prices, while a customer might go to a bricks and mortar bookstore that is conveniently located even if customer service was poorer than at a more distant store, users shopping on the web from their couch can switch to any of a dozen online bookstores instantaneously. Products and prices being equal, they will likely buy from the website with the most usable and pleasant user interface. On the web, site **usability is customer service**.

Reduce High Training Costs

Training courses for complex new desktop applications (traditional or web-enabled) or intranets typically run between 1 day and 2 weeks. Suppose a company has **200 users**, and each one must typically learn to use **two new systems a year**. If the training time per user could be **reduced by 4 hours** through easier-to-learn user interfaces and/or better user documentation, then **a savings of 100 days, or 20 person weeks would be realized**. The value of this saving will depend on the fully loaded hourly rate of the staff that will use the application.

Increase Low Productivity

Poor user interface design can have a significant effect on user productivity with in house applications. Consider a very simple transaction, such as filling in an on-line data entry form. Suppose an organization has **20 users**, who perform this transaction approximately **80 times a day** (quite typical for data entry clerks or other high frequency users). This adds up to 368,000 transactions per year (20 users working **230 days a year**, performing 80 transactions per day). If a transaction could be redesigned to reduce the transaction time by just 10 seconds, **a savings of 1,022 hours, or 25.5 person-weeks could be realized**. If improvement on a single screen of the system could increase productivity by 1/2 a person-year, clearly improvements across the whole application would have a very dramatic effect on productivity.

Reduce High Customer Support Costs

Poorly designed user interfaces on commercial software applications carry a cost not only in customer satisfaction, but also in real overhead in customer support. Supporting customers with trouble-shooting and data recovery can be very expensive. Designing a less confusing and less error-prone interface can reduce the need for customer support. For example, suppose a vendor has **600 customer organizations**, whose users call in for help and need an average of **15 minutes per call** to solve their problems. And, suppose **4 calls per customer per year** could be eliminated by engineering a more usable interface. This represents **a savings in customer support time of 15 weeks per year**.

Website user interfaces also impact the cost of customer support. Users who cannot figure out how to complete transactions **resort to other channels** such as phone, chat and email, all of which must be manned by customer support staff. Often a main business goal of websites – used to cost-justify the development of the web channel - is to reduce the cost of these other channels, but when users cannot successfully use the web channel, this goal is not met and the **website ROI may not be achieved**.

Minimize Costly User Errors

Ordinary user errors on desktop software applications and internets, such taking the wrong navigational pathway or clicking the wrong button, can cut into productivity. More serious user errors, such as inadvertently deleting data, or entering data incorrectly, can be very costly, resulting in real financial loss. Suppose, for example, that **12 serious errors** (each costing an average of **10 minutes** to make, discover, and recover from) per user per year could be identified and eliminated through usability engineering. If there were **250 users**, this would result in ***a savings of 12.5 person weeks per year.***

TIME IS MONEY.

Usability Engineering is a good investment.