Benefits of User-Centered Design

Is including user experience in project development worth the time and resources?If so, how can you determine and communicate back the value of following a user-centered design (UCD) approach to your organization?When talking about the benefit of UCD, you can discuss success measures in terms of measuring user performance and satisfaction as well as calculating some of your return on investment.

Digital Projects are an Investment

According to the Institute of Electrical and Electronic Engineers (IEEE)2005 research, roughly $1 trillion a year was spent on IT worldwide, with the U.S. government spending more than $60 billion on its roughly 1,200 civilian IT projects and an additional $16 billion on military IT.

In the Human Factors International (HFI) video, The ROI of User Experience, Dr. Susan Weinschenk notes that of those IT investments, **up to 15% of IT projects are abandoned and at least 50% of a programmers' time during the project is spent doing rework that is avoidable**. Following UCD best practices, helps to identify challenges upfront so that a solution can be found early.

Avoiding Common Mistakes

By building a skilled team and following the best practices outlined on this site, you can avoid several of the top 12 reasons IEEE identified for why IT projects fail:

- Unrealistic or unarticulated project goals

- Inaccurate estimates of needed resources

- Badly defined system requirements

- Poor reporting of the project's status

- Unmanaged risks

- Poor communication among customers, developers, and users

- Use of immature technology

- Inability to handle the project's complexity

- Sloppy development practices

- Poor project management

- Stakeholder politics

- Commercial pressures

HFI recommends following the "10%" rules.The rules of thumb state that 10% of your IT staff should be user experience (UX) professionals and 10% of your budget dedicated to UX.By putting a larger emphasis on UCD principles and practices, you can make iterative

improvements and avoid costly large scale rework that doesn't fit your users or organizations goals.

Understanding Your Return on Investment (ROI) of UX

At a minimum, success can be defined as the project not being abandoned and it finishing on time and on budget.However, you can go deeper by calculating the cost savings of doing UX upfront and also discussing success in terms of user performance and satisfaction measurements.

Calculating ROI

Weinschenk, in her white paper Usability: A Business Case ⧉, outlines three useful equations for calculating cost savings related to:

- Errors
  - (# of errors) x (avg. repair time) x (employee cost) x (# of employees) = cost savings
  - *Example: (2 errors/week) x (60 mins) x ($30/hour) x (100 employees) = $6,0000/week or $300,000/year*

- Cost of Development and Maintenance
  - (# of changes) x (avg. hrs/change) x (cost of developer) x (4, if late) = cost savings
  - *Example: (20 changes) x (8 hrs each) x ($40/hour) = $6,400 if fixed early or $25,600 if changed late*

- Productivity
  - (time saved) x (employee cost) x (# of employees) = cost savings
  - *Example: (1 hr/week) x ($30/hr) x (1000 employees) = $30,000/ week or $15,000,000/year*

Defining and Measuring Success

In addition, there are some other ways to define and monitor success related to your goals.You can do so by identifying specific targets for various performance and satisfaction goals:

Goals	Measurements	Target
Improve Performance	- Reduce number of user errors - Increase ease of use - Increase ease of learning	Identify Specific Targets for Each Measurement You Choose to Improve
Increase Exposure	- Increase traffic/ audience size - Increase number of return visitors when appropriate (retain users)	

	• Increase number of new visitors (attract users) • Increase number of visits from search
Improve Credibility	• Increase user satisfaction • Increase trust in the system • Increase number of visits referral
Reduce Resource Burden	• Reduce development costs • Reduce development time • Reduce maintenance costs • Reduce redesign costs • Decrease support costs • Reduce training needed • Reduce documentation costs
Increase Sales	• Increase transactions/ purchases • Increase product sales

References

- The ROI of User Experience with Dr. Susan Weinschenk 🔗
- ROI Calculators 🔗
- Why Software Fails 🔗
- Advancing Return on Investment Analysis for Government IT: A Public Value Framework (PDF 449 KB) 🔗
- Do Government Agencies and Non-Profits Get ROI from Usability 🔗
- The ROI of Usability 🔗