

---

# The Business Value of UX: Taking ROI to an Institutional Level

---

A Conversation with **Jeff Horvath**  
Vice President – UX Strategy  
Human Factors International

---

The Business  
Value of UX:  
Taking ROI to an  
Institutional Level

“It’s great to provide solutions that users will love, but if those solutions aren’t providing business value for your organization, then there’s usually not a place for them.”

“Most companies, after all, are not providing an altruistic service. Instead, the goal is to provide users with the best possible user experience in a way that provides your organization with the best possible business results.”

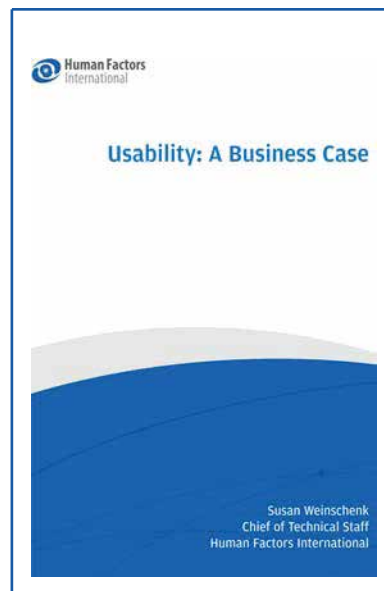
“That’s why we’re still talking about ROI today because management and executives will always need to be mindful of running their business efficiently and profitably.”

The goal is to provide users with the best possible user experience in a way that provides your organization with the best possible business results.

---

Why are we still talking about the ROI of UX activities?

We've made great progress on this front over the past five to eight years, but it is still something we need to discuss. I remember fighting this battle when my career first started in the mid-1990's. My job seemed to be 50% design and testing and 50% justifying why "usability" was an important thing to do. Back then, we would talk about how what we would now call UX work could increase sales, decrease development time, or provide other tangible business benefits. The conversation has been much the same ever since. To this day, one of our most popular white papers remains Usability: A Business Case from July of 2005 and our ROI calculators remain some of the most popular destinations on our website.



At HFI, we often try to explain to our clients that, in reality, we don't truly focus on user-centered design. In reality, what we all try to focus on is business-centered design. What we mean by that is that it's great to provide solutions that users will love, but if those solutions aren't providing business value for your organization, then there's usually not a place for them. Most companies, after all, are not providing an altruistic service. Instead, the goal is to provide users with the best possible user experience in a way

that provides your organization with the best possible business results.

That's why we're still talking about ROI today because management and executives will always need to be mindful of running their business efficiently and profitably.

**In the end you need to define what gains you hope to achieve from any given UX effort. Your ROI then is simply the ratio of your anticipated gain to your overall investment.**

How do companies typically measure ROI?

For the most part, organizations think about ROI in terms of whatever key performance indicators (KPIs) make sense for their organization. If you're talking about a retail web site, you're going to care about conversion rate or average order size. If you've got a call center application, you're going to care about reductions in average call time. If you've got a medical device, you're going to care a lot about reduced error rates. It all depends on what business metric is key to you.

ROI Measurement	Criteria
Conversion rate	# or % of visitors who buy or increase
Average order value	\$\$\$
Increase in pages viewed	# or % increase
Decrease in drop-off	# of people or % reduction
Decrease in typical # of calls to help desk	# or %
Reduction in training	# of days/hours reduced
Increase in usage	# of people, # of times, or % increases
Saving of user's time	# of minutes/hours and/or multiplied by labor rate
Saving of programmer's time	# of minutes/hours and/or multiplied by laborrate
Error reduction	# or % and resulting \$\$ amount if any

In the end you need to define what gains you hope to achieve from any given UX effort. Your ROI then is simply the ratio of your anticipated gain to your overall investment.

When we're thinking about determining the value of UX activities, short-term gains will always be more persuasive than long-term gains.

---

So, ROI is simply a ratio of money gained over money invested?

Well, it's not quite that simple. The industry has traditionally defined it that way, but that ignores a few key ideas that we really should be paying attention to. There are two important ideas that tell us that a dollar today is worth more than a dollar tomorrow.

In the field of economics, there is a concept called Discounted Present Value. It's defined as this:

$$DPV = FV / (1 + i)^n$$

Where:

DPV = discounted present value

FV = future value

i = inflation

n = number of years

The idea here is that, in the real world, there is inflation. Typically, we see inflation of a couple of percentage points per year. So, we really need to factor in inflation when we calculate anticipated gains. A dollar gained a year from now is not as valuable as a dollar gained today because that dollar a year from now is devalued due to inflation.

The other reason a dollar tomorrow isn't worth as much as a dollar today has to do with a psychological principle sometimes referred to as intertemporal discounting (Soman, et al., 2005). This means that we perceive a dollar tomorrow as worth less than a dollar today. Think about it. If I offered you \$100 right now or \$200 in ten years, which would you prefer? You'd almost certainly take the \$100 right now, because getting it right now has more perceived value to us even if we don't factor in inflation.

So, when we factor both of these in discounted present value and intertemporal discounting – it's clear that gains today are worth more to us than gains tomorrow. That's not to say that gains tomorrow aren't important. It just means that when we're thinking about determining the value of UX activities, short-term gains will always be more persuasive than long-term gains.

**Understanding the value of investing in general capabilities building – that’s where the focus is today.**

---

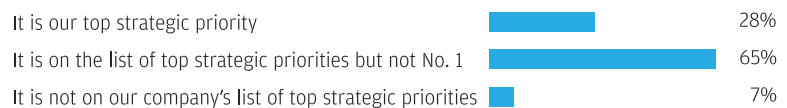
No matter how we calculate it, these tactical ways of measuring ROI are very important to many people, but they really only pertain to a specific project or specific design. Things get a lot trickier when we’re trying to understand the value of investing in general capabilities building at an organization. That’s really where the focus is today.

So, are C-level executives beginning to care more about the business value of UX then?

Yes, they really are. We’ve seen a real surge in the attention C-level executives have placed on UX and, more generally, customer experience (CX). In years past, we really had to work hard to help executives understand what UX was and why it had business value. Today, most executives get it at a gut level. If you want to run a successful business, you need to make sure your customers are happy. Forrester recently published a report that showed that 93% of executives thought that improving the customer experience was a top strategic priority. That’s music to the UX industry’s ears.

---

**To what degree will improving customer experience be a top strategic priority for your company in 2012?**



Base: 86 customer experience professionals

Source: q4 2011 Global Customer Experience Peer Research Panel Online Survey

---

The HFI Usability Maturity Model helps organizations understand what capabilities they need in order to be a mature UX organization.

The problem that we have, however, is that just because an executive agrees that customer experience is a top priority, it doesn't mean that they have a plan for how to deliver. What are the steps involved? What do we do first? How much do we budget? What's the ROI of investing in that at an institutional level? There are a host of unknowns that need to be figured out and each involves an investment of time and money.

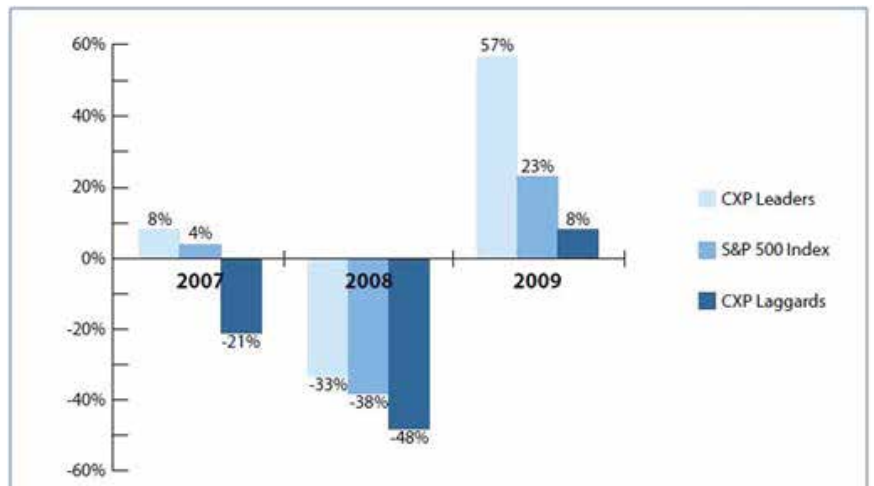
HFI executives Eric Schaffer and Apala Lahiri have released a book on how to institutionalize UX practices at organizations: *Institutionalization of UX: A Stepby-Step Guide to a User Experience Practice*. In the book, they deal with all of the key elements necessary to create a mature UX program from staffing to standards. As part of the book, they present the HFI Usability Maturity Model which helps organizations understand what capabilities they need to have in order to be a mature UX organization. It covers everything from executive support to showcase projects. With each increasing level, the organization is in a better position to deliver exceptional user experiences in the products and services it provides. Each of these steps, however, takes time and money. It's natural then for organizations to ask questions such as, "Is Level 4 good enough for me?", "How much more of an investment would Level 5 be over Level 4?", or "How does the ROI vary with the different levels?"

Usability Maturity Chart <small>Version 2.0</small>						
<input type="radio"/> Not there <input type="radio"/> Some what present <input checked="" type="radio"/> Present						Managed Usability
Usability Activity	Level 1 Beginning Usability	Level 2 Executive Champion	Level 3 Essential Capabilities	Level 4 Full Capability	Level 5 Mature Practice	
<b>Strategy</b>						
Written Strategy	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
<b>Infrastructure</b>						
User Centered Design Methodology	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
User Interface Standards	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Repository of User Ecosystem Data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Usability Test Laboratory	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Metrics and Continuous Improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
<b>Education and Training</b>						
Regular Executive Briefings	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Usability Introduction for Design Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Professional Training for Usability Staff	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Advanced Training for Usability Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
<b>Staffing</b>						
Executive Champions	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Managed Usability Organization	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Core of Certified Staff	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Sufficient Staff to Meet Demand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
Organization Certificate Audit						

(see Appendix A for a full-size version of the chart)

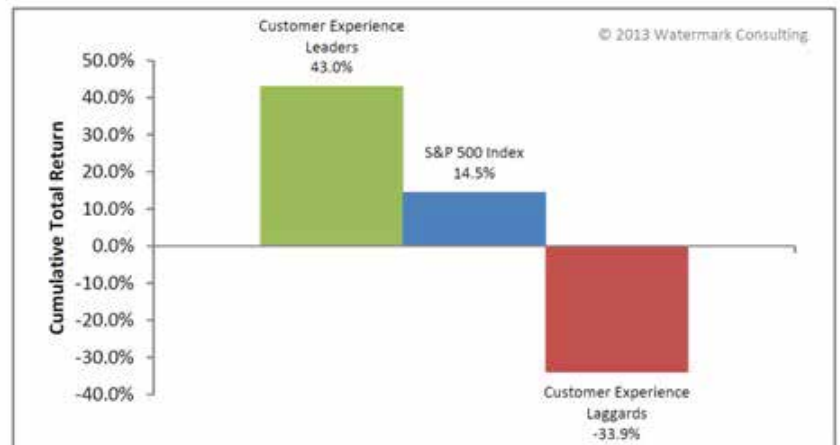
Forrester reported that the stock valuation of companies defined to be CX leaders significantly outperformed CX laggards and the market as a whole, even during difficult times.

It's notoriously difficult to define a very clear and concise measure of gain for such an institutional effort. We have some very convincing summary-level data and exemplars to look to however. In 2009, Forrester reported that the stock valuation of companies defined to be CX leaders significantly outperformed CX laggards and the market as a whole even during difficult times. In 2011, Watermark Consulting repeated the study and came to the same conclusions.



### Customer Experience Leaders Outperform the Market

6-Year Stock Performance of Customer Experience Leaders vs. Laggards vs. S&P 500 (2007-2012)

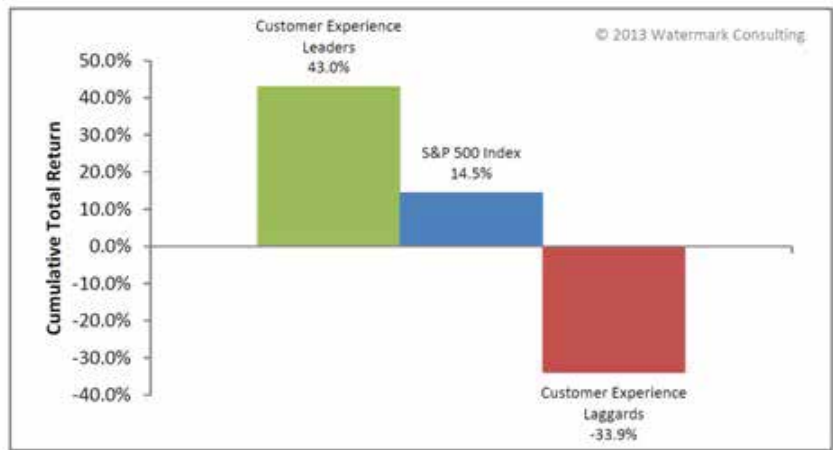


Watermark defines Customer Experience Leaders and Laggards as the top and bottom ten rated public companies in Forrester Research's 2007-2012 Customer Experience Index studies. Comparison is based on performance of equally-weighted, annually reweighted stock portfolios of Customer Experience Leaders and Laggards relative to the S&P 500 index.

In 2010, Rolta India announced it had received Level 5 certification from HFI. With the news of this achievement, its stock price jumped over 5%.

Now, customer experience is a bit broader notion than just user experience. Customer experience tends to deal with things like customer support, sales channels, and in-store experiences. User experience tends to focus largely on digital experiences. So, you might wonder if these findings about companies that focus on customer experience still hold true when we just look at companies which focus on great user experiences. Happily, the trend remains true. Figure 7 shows the one-year performance of the UX investment portfolio created by Teehan-Lax in 2006. The one-year gain was +39.1%, which outperformed the Nasdaq, S&P 500, Nasdaq 100 and the NYSE during the same performance. Measured over a four-and-a-half year period from inception, the fund gained 101.8%.

**Customer Experience Leaders Outperform the Market**  
6-Year Stock Performance of Customer Experience Leaders vs. Laggards vs. S&P 500 (2007-2012)



Watermark defines Customer Experience leaders and Laggards as the top ten and bottom ten total public companies in Forrester Research's 2007-2012 Customer Experience Index studies. Comparison is based on performance of equally-weighted, annually reconstituted stock portfolios of Customer Experience Leaders and Laggards relative to the S&P 500 index.

HFI has helped many clients along this journey and all have experienced their own level of success. The journey can take several years and millions of dollars when all is said and done, so it is difficult and rare for organizations to publicly share their specific success stories. Our friends at Rolta India are a rare exception. Rolta has over 5,000 employees, and the company provides CAD, CAM, geospatial information system (GIS), EBusiness and related services. With their size, diversity of customer base, and growth they realized they need to differentiate through a commitment to user experience. In 2010, they announced that they had received Level 5 certification from HFI (i.e., they had achieved Level 5 on the Maturity Model). With the news of this achievement, their stock price jumped over 5%.



[www.londonstockexchange.com/exchange/news/market-news/market-news-detail.html?announcementId=10999914](http://www.londonstockexchange.com/exchange/news/market-news/market-news-detail.html?announcementId=10999914)

**ROLTA receives HFI Level-5 Certification for Capability Maturity Practices in Software Usability**

**Mumbai:** ROLTA today announced that its Enterprise IT Solutions Division was honored with certification at the prestigious 'Level 5' under Certified Practice in Usability™ from "Human Factors International (HFI)", a global leader in user-experience design consulting, training and certification. Rolta is the world's first company to have achieved 'Level 5' certification. This recognizes Rolta's investments in creating a world-class Usability Engineering infrastructure with exceptional expertise, processes, and methodologies that enable the delivery of optimized software usability experiences.

Rolta's expertise in software usability, combined with developing enterprise-level solutions from its rich repository of Intellectual Property, provides an enhanced value proposition for its customers. Usability is a key pillar of contemporary software to accelerate user adoption and support efficient workflows, ultimately enabling customers to accomplish their business goals more effectively.

Dr. Eric Schaffer, CEO of HFI said "Rolta has developed a user-centered design competence of the highest order. This is the result of clear executive commitment, governance, methods, standards, and infrastructure for world-class Usability Practices. It was my pleasure to designate

**"Rolta India accelerates on receiving HFI Level-5 certification"**

"Rolta India is currently trading at Rs 74.15, up by 3.75 points or 5.33% from its previous closing of Rs 70.40 on the BSE."  
<http://in.finance.yahoo.com/news/Rolta-India-accelerates-accordfintech-3460410277.html>

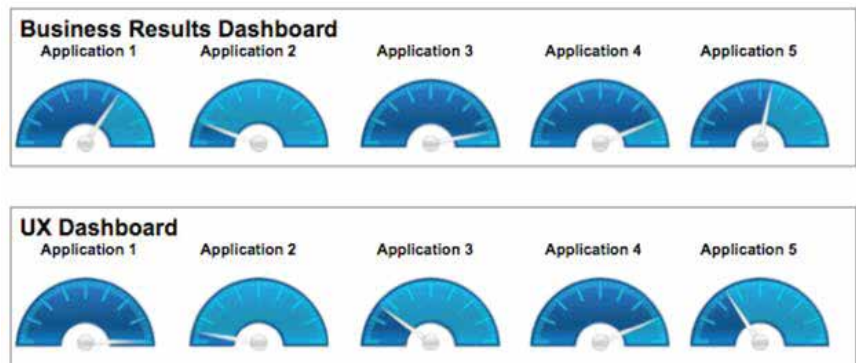
When you align UX metrics with business metrics in a meaningful way, you've got a tool that lets executives make informed business decisions about what needs work and what doesn't.

How can this focus on the business value of UX help decision-makers make smart business decisions?

When you align UX metrics with business metrics in a meaningful way, you've got a tool that lets executives make informed business decisions about what needs work and what doesn't, which stated another way is where to invest their limited time and dollars and where not to. This then enables executives to determine where and when they can move on and declare victory. If we look at the two dashboards in Figure 9, which applications would you invest more UX work in? If you simply pay attention to UX factors, you'd probably decide to invest in #2, #3, and #5. But, really, why would you invest anything in #3? It's already getting about as much business value as it can. Creating a better UX for it is nice, but it's not going to provide any additional business value. On the other hand, if you look just at the business factors, you might decide that you should invest some UX work in #1, #2, and #5. If you look more closely, however, there's no need to invest any more UX work in #1. It's already as good as it can get. The fact that the business results aren't as good as they can be must be due to something other than UX.

A good user experience, like a measurable ROI, doesn't typically happen by accident. It is the result of careful planning, analysis, investment, and continuous improvement.

It's these kinds of informed decisions that look at the effectiveness and value of UX work as it contributes to the overall business success that wise executives make. This kind of attention to detail and planful coordination between UX and business is what sets the "UX leaders" apart from the "UX laggards."



How can one start aligning and measuring the business metrics with the UX metrics?

The first step is to understand very clearly what business metrics make sense for your organization. Different metrics are meaningful for different organizations. Once you've identified the key business metrics that work for your organization, you must determine what UX metrics you can gather that would help inform those business metrics. Just because you can measure something about UX doesn't mean you should. It's only useful if what you measure can inform the business. Once you've got that figured out, it's just a matter of getting those metrics routinely measured in a way that informs business decisions.

As part of defining the metrics, you'll start to identify where your organization's weaknesses and strengths can be found. It may be that you have the technical measurement tools, but the staff to do the analysis and define solutions are missing. Or, it may be that you have the staff and data but not the executive sponsorship to turn user experience from an ad-hoc discipline to one that is strategically valued and supported.

**“The most valuable career training occurs when the training organization presents reality and how to work within it.” – Karen Ball, Program Manager, Hewlett-Packard**

---

Usability analyst training gives you a learning experience which makes you a more knowledgeable and skilled UX professional, and thus a more valued and productive member of your organization.

This provides a vital return on investment for the training, which is essential in today’s challenging and competitive global economic climate.

Why should individuals and organizations be concerned about getting formal training in user-centered design?

Designers and developers need adequate training to understand how to most appropriately apply the range of interface design decisions available to them.

Attempting to merely rely on assumptions about users and customers is risky. The UX team requires practical training about how people really think, see, remember, and move, in order to design highly effective user interfaces.

Plus, it takes the coordinated effort of many trained individuals in UX to help ensure the development and implementation of the most useful and usable designs.

UX professionals also help to protect an organization’s brand by delivering easy to use interface designs and satisfying user experiences, thereby minimizing potential negative interactions for internal or external users.

Taking time to plan and implement good Web and application designs from the beginning significantly lowers the risks of launching poorly designed interfaces—the kinds of interfaces that may unfortunately increase helpdesk calls and cost considerably more to revise than if they had been designed properly from the beginning.

---

So, we encourage our clients to use the maturity model to help plot their current state and project their future desired state with respect to organizational maturity and then build the strategic and tactical programs required to help them achieve that desired endpoint. A good user experience, like a measurable ROI, doesn't typically happen by accident. It is the result of careful planning, analysis, investment, and continuous improvement.

## References

- › Usability: A Business Case. Susan Weinschenk; HFI white paper
- › ROI calculators
- › Forrester - CxPi Vs. Stock Performance; Harley Manning, March 19, 2012
- › Watermark Consulting 2013 Customer Experience ROI Study
- › UX Fund Matures, Up 39.3%
- › 'User experience' as a primary criterion for selecting stocks? (login required)
- › Discounted\_cash\_flow
- › Soman, et. al (2005). The Psychology of Intertemporal Discounting: Why are Distant Events Valued Differently from Proximal Ones? Marketing Letters 16:3/4, 347-360, 2005 Springer Science + Business Media, Inc. Manufactured in the Netherlands.
- › Institutionalization of UX: A Step-by-Step Guide to a User Experience Practice, Second Edition by Eric Schaffer and Apala Lahiri (Addison-Wesley Dec 2013)
- › White Paper: Rolta India: The User Experience Institutionalization Journey
- › Video: What Every CEO Needs to Know About User Experience
- › Video: HFI Helps Companies Apply Global Best Practices
- › Design Index: The Impact of Design on Stock Market Performance

# Appendix A

Usability Maturity Chart <small>Version 2.0</small>						Human Factors International
<input type="radio"/> Not there <input type="radio"/> Some what present <input checked="" type="radio"/> Present						Managed Usability
Usability Activity	Level 1 Beginning Usability	Level 2 Executive Champion	Level 3 Essential Capabilities	Level 4 Full Capability	Level 5 Mature Practice	
<b>Strategy</b>						
Written Strategy	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
<b>Infrastructure</b>						
User Centered Design Methodology	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
User Interface Standards	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Repository of User Ecosystem Data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Usability Test Laboratory	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Metrics and Continuous Improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
<b>Education and Training</b>						
Regular Executive Briefings	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Usability Introduction for Design Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Professional Training for Usability Staff	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Advanced Training for Usability Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
<b>Staffing</b>						
Executive Champions	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Managed Usability Organization	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Core of Certified Staff	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Sufficient Staff to Meet Demand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
Organization Certificate Audit						



**Jeff Horvath, Ph.D., CUA**  
 VP - User Experience Strategy  
 Human Factors International

## About the author

Jeff Horvath has been working in the field of user experience and human factors for more than a decade. His background in psychology and his experience in the business world provide a combination of skills and perspectives that can help your organization design solutions for end users that are usable AND that meet your business goals.

Jeff's customer list includes American Family Insurance, Caterpillar, Lands' End, Mapquest, Motorola, and Sprint. He has helped them successfully integrate user centered design best practices at their organizations. He has worked in specialized industries such as education, retail, finance, telecommunications, service, manufacturing, and biotech.

### Jeff's experience includes:

- › Positioning and growing UX within and across organizations
- › Strategic consulting
- › Partnering with agencies and developers
- › Field research
- › Testing & evaluation
- › Web analytics and business intelligence
- › UX design
- › Continuous usability
- › Accessibility
- › Internationalization & localization
- › Web, GUI, mobile

As VP - User Experience Strategy at HFI, Jeff defines and oversees solutions for clients, and manages and mentors HFI's technical staff. Jeff has a doctorate in educational psychology from University of Wisconsin-Madison.



For more details  
please write to [programadvisor@hfi.training](mailto:programadvisor@hfi.training)

[hfi.training](http://hfi.training)