How to Avoid the 24 Perilous Pitfalls to UX Maturity

A conversation with Eric Schaffer
CEO and Founder
Human Factors International

"Maturity of UX practice is not so important if your organization is based on a single application. But if it must operate across many coordinated channels (stores, call centers, websites, native applications, etc.) then maturity is important. You cannot expect to succeed based on just having some smart UX designers."

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What is meant by UX maturity?

We are really talking about the maturity of your UX design practice. Most companies are going through a long journey toward a customer-centric design capability. This includes changing the organization's mind set. But it also includes *much* more. In particular, it means having a serious engineering operation in place.

"The central key to a mature practice is to have a process driven operation."

To have an efficient and sustainable UX practice there is a lot that needs to be in place. There are lots of parts needed. And there are lots of ways it can fail. The global progress toward customer-centric design has been astoundingly slow and painful.

Perhaps the central key to a mature practice is to have a process driven operation. This means that we are not dependent on a specific person. Instead, it's far better to set up a practice that moves forward, builds knowledge, and delivers a coherent and consistent interface; even as staff come and go.

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"Executives know that UX is important. They talk about it a lot, but they don't really know what it is."

When is mature UX vital to a company's success?

Today the quality of customer experience is essential to a company's success, even to its survival. We see companies thrive or fail based on their delivery of UX. Today hardware and software are not differentiators. Customers experience organizations based on their digital interactions and direct channels. So a great UX is key to success. And younger generations have higher and higher expectations about how well things must operate.

You can succeed with an individual doing great design for a while. If you have a Steve Jobs, you can deliver based on his vision and intuition. But eventually he becomes unavailable. Now Apple can only hope that it has institutionalized enough of his vision and user-centric design focus to carry it forward. Time will tell.

Maturity of UX practice is not so important if your organization is based on a single application. But if it must operate across many coordinated channels (stores, call centers, web sites, native applications, etc.) then maturity is important. You cannot expect to succeed just by having some smart UX designers. If you want your organization to last 100 years[1], then it really cannot be based on individuals.

Why is the journey so perilous?

I have really been shocked. My book *Institutionalization of Usability: A Step-by-Step Guide*[2] was published in 2004 and, by now, I really thought we would be much further along. But we are not. Sure, I can point to successes. But more organizations really struggle.

Today, more executives know that UX is important. They talk about it a lot, but they don't really know what it is. And they certainly have no idea how to approach institutionalizing it. But, most unfortunately, they *think* they know. And that is dangerous. They become excited and move forward aggressively, only to stumble. Most pitfalls are because executives think they know what to do, but they don't.

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"People often feel like they are human factors engineering experts simply because they are human."

If the subject was data encryption, executives would be more deliberate in their assumptions; it is obviously unfamiliar to them. They would approach it more carefully and get advice from experts. But people often feel like they are human factors engineering experts simply because they are human. The idea of it sounds simple and like common sense. But in reality it is *not* common sense. And it is *much* harder to decrypt human behavior than it is to decrypt data. UX engineering is a complex field, and those that go forward with simple solutions often fail.

The journey is even more perilous because there are hundreds of organizations offering low quality or even counterfeit UX solutions. They are there to make a quick buck, by saying that they can do it. I was really shocked to find a huge system integrator hiring away our staff and putting them in a presales organization. They wanted them to *talk* about doing UX work with the appropriate terms they learned at HFI. But ultimately there was no one to really deliver on that promise.

The world is full of people offering quick-fix solutions. Lose 10 pounds in a week with no exercise. Sure. Or...

Design Hacking: Great UX without time, money, or design skills

On November 14, I presented Design Hacking: Great UX without time, money, or design skills to the Igniters: Stanford Entrepreneurs and Silicon Valley Founders group at Hacker Dojo in Mountain View, CA. I would like to thank Raj Lal, Cynthia Lee, and Wendy Soon of Vorkspace for inviting me and making this event happen. I had a great time, made some excellent contacts, and received a lot of encouraging feedback.

Design Hacking at Hacker Dojo. Apparently you are supposed to photobomb from the back.

But it is not just about executive skills. It is far worse than that.

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What are the 24 perilous pitfalls?

Executive Pitfalls

Phase 1 – Lack of Interest

First-phase executives don't understand they are in a life and death race with their competition to deliver a competitive and differentiated user experience. They are focused on other things. Often initial attempts to move UX forward are limited to organic attempts by junior staff that are underfunded and disjointed.

Phase 2 – Errors on Where to Invest

Later, when executives finally get on board, they move forward in the wrong directions with great determination. They gravitate to simplistic or familiar solutions that seem reasonable on the surface and usually fail within a couple of years.

Phase 3 – Everyone Wants to Own It

If the organization establishes a practice that is successful, the results are striking. Then everyone wants to own the UX practice. It is pulled in different directions and rendered ineffective. It often ends up with no central UX team at all, with competing executives and different approaches delivering to the market inconsistently.

> **"First-phase executives don't understand they are in a life and death race with their competition to deliver a competitive and differentiated user experience."**

EXECUTIVE BLUNDERS
1. Lack of interest
2. Errors on where to invest
3. Everyone wants to own it

PIECEMEAL RAMPS
4. Halfway measures
5. Broken road maps
6. Missing parts

ORGANIZATIONAL STRUCTURE
7. Lack of central group
8. Where the central UX group sits
9. Dividing research and design

UX LEADERSHIP
10. The theoretician
11. The individual contributor
12. The frightened pretender

Avoid the 24 perilous pitfalls of growing a UX practice.

UX STAFFING
13. Piecemeal people
14. Fanciful tasks

THE "BLUE PILL"
15. Feel-good programs
16. Agile not informed by UX
17. Customer journey mapping

THE LONG TRAIL
18. Governance
19. Cultural acceptance
20. Growing up the value chain
21. Attrition
22. Critical mass
23. Keeping it current
24. Maintaining discipline

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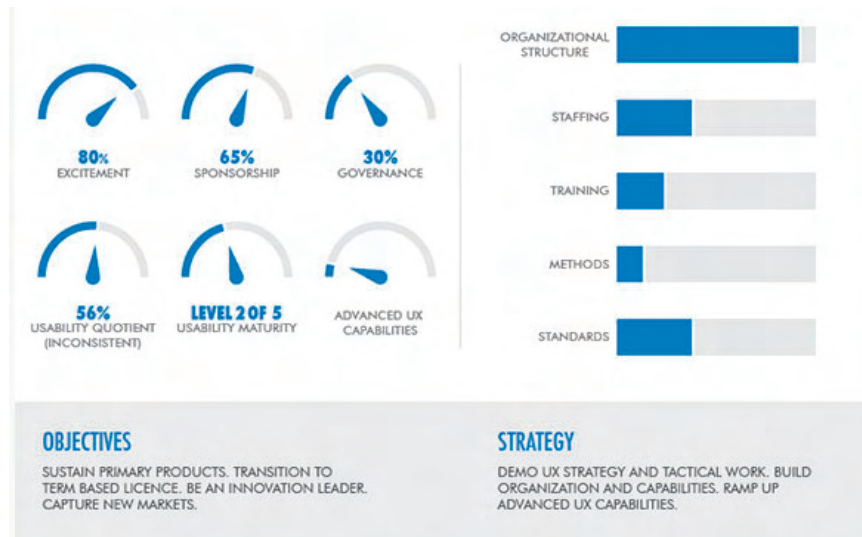
The Ramp Up Pitfalls

Halfway Measures

Setting up a UX team is like getting a multi-engine airplane off the ground. Getting it to take off requires a serious capabilities-building push. After the operation has reached critical mass it can be tuned toward efficiency. But the initial period is critical. Instead most organizations start with a trial effort. Then they are surprised when the results are negligible.

Missing Parts

In my second book, *Institutionalization of UX: A Step-by-Step Guide to a User Experience Practice*[3], I define 14 different parts to a UX institutionalization effort. If you have a new UX organization, it is a bit like juggling 14 balls at once. And, if you decide to write things like methods and standards from scratch (instead of starting with baseline materials), it is like juggling bowling balls. But if you leave out any of the 14 parts, the UX practice does not operate effectively, at least over time.

The 14 parts of institutionalization are just the major building blocks. There are lots of smaller parts that are needed. You need operating models, career plans, staff evaluation matrices, project scoping, planning processes, project management processes, and so on. So it is a bit like a blizzard of bowling balls, tennis balls, and ping pong balls.

"Setting up a UX team is like getting a multi-engine airplane off the ground."

80% EXCITEMENT	ORGANIZATIONAL STRUCTURE
65% SPONSORSHIP	STAFFING
30% GOVERNANCE	TRAINING
56% USABILITY QUOTIENT (INCONSISTENT)	METHODS
LEVEL 2 OF 5 USABILITY MATURITY	STANDARDS
ADVANCED UX CAPABILITIES	

OBJECTIVES
SUSTAIN PRIMARY PRODUCTS. TRANSITION TO TERM BASED LICENCE. BE AN INNOVATION LEADER. CAPTURE NEW MARKETS.

STRATEGY
DEMO UX STRATEGY AND TACTICAL WORK. BUILD ORGANIZATION AND CAPABILITIES. RAMP UP ADVANCED UX CAPABILITIES.

Share this white paper:

"The 14 parts of a UX institutionalization effort need to be assembled in the right order."

Broken Road Maps

These 14 parts of a UX institutionalization effort need to be assembled in the right order. In my book, I show a generic roadmap[4] which describes how to do this. But we have yet to see an organization follow that exact sequence. For example, we know that most of the time methods are needed early, because they define things like staffing and training requirements. But organizations can get hung up because they don't have these and other prerequisites in place. And remember that many of the parts take months to put in place.

Organizational Structure Pitfalls

Lack of Central Group

I know it seems obvious. How can you possibly deliver a coherent overall cross-channel experience unless the designs are created by a coordinated organization? How can you optimally leverage staff, tools, and knowledge without a central group? But some companies actually try to proceed with fragmented UX operations. There is no such thing as a mature UX operation that has no central UX team.

Where the Central UX Group Sits

Needing a central team is a given. *Where* the Central UX group reports is complex. It has to do with the organization's power centers, caring about the users, and with the dynamics of governance. Being under the wrong group or person alone can make a UX practice fail.

Dividing Research and Design

It is amazing that the UX operation is often broken up into groups. For example, one group for research and another one for design. Or, one group for interactive design and visual design. Unfortunately, this sets the stage for a blizzard of hand-offs between those teams, making the whole development process slow, painful, and error prone.

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UX Leadership Pitfalls

The central UX group needs a leader. This person plays a key role in driving the organization forward and setting up the practice. Hiring the wrong person can be catastrophic. And, sure enough, there are at least three common leadership pitfalls.

The Theoretician

Hire a highly qualified UX PhD who, for instance, has a deep understanding of signal detection theory but no idea how to manage organizational politics or practical UX engineering projects.

The Individual Contributor

Hire a highly qualified UX designer who has worked on the latest breakthrough design but has no idea how to lead. "The individual contributor" thinks that the solution is to just to hire someone like them, not understanding that a process driven and mature practice is needed. Such a person doesn't imagine how very different that is from a bunch of talented designers working in a beautifully designed space.

The Frightened Pretender

Hire an unqualified person with an embellished résumé. This is the worst UX Leadership Pitfall. Many people claim to have decades of UX experience because they did interface coding or visual design, but they have never had the benefit of actual education, training, or mentoring in the field. They have really wrong ideas about what UX is and how it should be done. If they execute these ideas, the best hope is that they hire a competent vendor who will quietly coach them and deliver quality designs. However, they will hesitate to hire a vendor or even people with serious UX competency for fear that they will be exposed. So they end up locking the organization into UX work that is done at their level.

> **"Many people claim to have decades of UX experience because they did interface coding or visual design, but they have never had the benefit of actual education, training, or mentoring in the field."**

Share this white paper:

"If the manager knows nothing, it seems like UX work could be done by anyone in any amount of time."

UX Staffing Pitfalls

Piecemeal People
It is very hard to find competent UX staff. It takes years to gain competency in this field. In addition, experienced practitioners have very diverse capabilities. Some are great at interface design. Some are great at strategy. Others are good at ecosystem research. Some can only do simple things like usability testing or customer journey maps. Some specialize in a particular technology (such as voice systems) or a single domain (like medical devices). Some specialize in persuasion engineering. Some are good team leaders. Some are good presenters. They often have no baseline knowledge or a common language. It's cumbersome or inefficient to piece together all those capabilities in order to deliver a full range of UX services.

Fanciful Tasks
A bank wanted a very complicated structural design done for an advanced application. We bid two months of work for a team of four very experienced UX practitioners. I myself would have to spend time helping to meet the challenge. Then the bank decided not to use us for the project. Instead they selected two junior UX staff and told them to get it done in two weeks. The results were predictable, and we ended up doing the project anyway six months later.

If a manager knows nothing, it seems like UX work could be done by anyone in any amount of time. This is demoralizing to the staff. It also demonstrates, incorrectly, that UX does not really work as a field.

The "Blue Pill" Pitfalls

Feel-Good Programs
A whole class of programs consists of people paying attention to and thinking about the customer. Banners such as "We Love Our Customers" are displayed by organizations, which is useful if their customers had been hating them. Some programs have managers spend a day with customers, even though they have no training in data gathering, a data gathering protocol, or an analysis in mind. This approach makes us think about customers more, without ultimately offering them anything of value.

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Agile

Many companies are moving toward Agile development methods and many variants for fast cycle group design. This movement is not driven by UX. Agile is a software development method. UX can be adapted to work in those environments. But if the UX team is relegated to screen painters the results are reliable. The team rapidly designs the wrong thing. They deliver a minimum viable product that is not really viable. They create modules of the design that do not hang together under a coherent overall structure. Or, if they hang together, they do not fit together with other related channels or applications. So a good UX operation can make Agile work effectively, but in no way is Agile itself a UX solution.

Customer Journey Mapping

People are excited about customer journey mapping. It has been around since the 1970s when it was called performance analysis. Customer journey mapping takes an existing workflow or environment, finds areas that need improvement, and makes tactical changes. This is a very easy-to-learn part of UX engineering, but it has a limitation: You cannot use this methodology to build a new system. It creates fixes, but it does not create a new business offering, a new store, a new website, or a new application.

The Long Trail Pitfalls

Once the practice is set up and running, the challenge is not yet over. It is not uncommon to have that practice come apart and be lost over time.

Governance

The UX practice is running! But there is not really a mechanism where executives can monitor the practice. They can't know if the capabilities are being maintained. They can't tell if the required work is really being done. The UX practice then unravels and disappears.

Cultural Acceptance

The UX practice is running! But the managers in the organization don't really understand the value of UX. Or they feel it is a threat. The practice is undermined and excluded. The UX practice then unravels and disappears.

Growing up the Value Chain

The UX practice is running! But it is only providing essential lower level services. It might only be doing usability testing or only being in an Agile scrum as a screen painting shop. The team is not capable of, or is not engaged to support omni-channel strategy or innovation work. It might not even be helping with persuasion. The UX practice then unravels and disappears.

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Share this white paper:

"The executive community and the organization as a whole have only a limited attention span."

Attrition

The UX practice is running! But it is difficult to retain UX staff. Competitors send headhunters to recruit your staff. I remember a time when every HFI practitioner in India was being offered a 40% increase in pay to shift to another company. And there might be no process or facilities to on board, train, and align replacement staff. The UX practice then unravels and disappears.

Overflow

The UX practice is running! But the demand builds fast. The UX staff that have been working so hard have finally been successful. But it becomes impossible to meet the demand. Staff are spread thin, so they can't deliver quality. Vendors are brought in, but they are not aligned and do things very differently. The team is no longer providing the promised delivery and results. The UX practice then unravels and disappears.

Keeping it Current

The UX practice is running! But the UX field is constantly changing. Sure, the fundamental engineering principles are the same. But new techniques are developed. New insights are provided. We must adapt to new technologies. And we must design for a shifting model of the future. The team becomes out of date. Product teams then start looking outside for more current UX capabilities. The UX practice then unravels and disappears.

Maintaining Discipline

The UX practice is running! But keeping the practice aligned and operating with quality and consistency takes discipline on a daily basis. UX practitioners drift into different methods, instead of refining the shared method. They forget to apply UI standards and start building things from scratch. They stop working with the knowledge management framework and just spit out slideshows based on what they individually know. The whole thing becomes increasingly unfocused. The UX practice then unravels and disappears.

So are those all the pitfalls?

No, there are more! The critical point is that the executive community and the organization as a whole have only a limited attention span. If they don't see results quickly (in 6 months or so), then it becomes increasingly difficult to keep the focus on transformation going. That's why mitigating UX maturity gaps is vital to overall success.

Share this white paper:

"Good UX is a critical business differentiator. Every day that it is not applied costs money."

What is the effect of delays in reaching maturity for the organization as a whole?

Good UX is a critical business differentiator. Every day that it is not applied costs money. If a company with good UX grows at 43% (compared with an average of 14.5%), the cost amounts to *a lot of money*[5].

How can we mitigate these perilous pitfalls?

It's challenging. Four things are essential:

▶ *You need an executive champion.* This person is either an expert in building a mature UX practice (only a few of those around) or employs and manage the experts. Then the executive suite needs to provide solid sustained support for the transformation. A test project might be part of the getting started strategy. But it won't make an effective practice happen within the attention span of the organization.

▶ *You need an expert resource who specializes in setting up mature practices.* It is like setting up a hospital. It is not the same as doing surgery. A team of super surgeons will actually not be able to setup a great hospital. And a team of great UX designers won't build a UX practice.

▶ *Generally speaking, the operation should not start from scratch.* A couple of billion dollars of research underlies the UX field. You cannot replicate that from scratch. Building methods, standards, tools, and training costs many millions and takes years. You cannot build it from scratch within the attention span of the organization. You need to onboard baseline materials and COTS tools. Do not reinvent the wheel.

▶ *You need to hire the right UX practice manager.* This is not easy and is such a common point of failure that I'm tempted to write a separate book on this topic. The right person is not necessarily a degreed UX PhD or even a superstar designer. The key attributes are leadership, management, and empowerment of people. This is a great solution when the UX practice manager matures, which takes about 5 years!

Share this white paper:

"This does require setting up a serious practice and integrating it into the culture of the organization. It shifts the whole culture in serious ways."

How do these pitfalls affect the UX manager and the UX executive champion?

I have seen people associated with a UX transformation go rocketing up through the organization. Because UX has such an impressive impact on the organization, it gets credit for the transformation and is often a key to exposure and promotion. But if the effort fails…. well, that is not so good. I've seen UX managers reassigned to QA or other unrelated roles.

Instead of a long journey to maturity (potentially lasting years) are there approaches that will actually succeed?

HFI has an interesting approach that was demonstrated in 2015. We simply built a practice from scratch. We started with a seed team of 14 tech staff and put in place all the elements of the HFI practice. It was like cloning the operation. We were able to have the seed team producing and running in a mature way in a month. We adapted the operating model, tuned the facilities, recruited and trained 50 staff members in just over 6 months. We worried about integration and education of executives. And, we worked to knit the group into the organization's operations and culture. Then we just turned on the lights. It was exciting for me to be able to stand up a Level V practice in just 5-6 months, which allows an organization to have a real, solid, effective, and mature UX practice *within* the attention span of most organizations.

Why has it taken so long to find a solid approach to UX maturity that will not derail?

I admit that I've been surprised. I thought that it was enough to point out all the parts that are needed. But it has been painful to watch how organizations struggle. And it has been horrifying to watch organizations fail and teams disappear. There is a regular cycle of building and dissipating, and seeing the pain of bad design, and then trying to build again. I am a bit embarrassed that I did not foresee how many pitfalls are lurking about. Ultimately, success requires setting up a serious practice and integrating it into the culture of the organization. It shifts the whole culture in serious ways.

Share this white paper:

> **"You can certainly run some small projects to demonstrate the value. But you should drive relentlessly toward a mature solution."**

If I am just getting started on the road to maturity how can I maximize my success?

You can certainly run some small projects to demonstrate the value. But you should drive relentlessly toward a mature solution. I've made sure that every project we do at HFI works to establish the foundations for a mature practice. Even if we just do a usability test we work to establish the framework. And, when you are ready, you should drive to a full solid solution. Half measures are like taking off with a plane by pushing the throttles halfway forward.

If I am well on the road to UX maturity, how can I prevent my effort from derailing?

Drive to full maturity. And get there within the attention span of your organization.

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Dr. Eric Schaffer
Founder and CEO
Human Factors International

About Eric

Dr. Eric Schaffer is the founder and CEO of Human Factors International, Inc. (HFI). In the last quarter century, he has become known as the visionary who recognized that usability would be the driving force in the "Third Wave of the Information Age," following both hardware and software as the previous key differentiators. Like Gordon Moore's insight that processor power would double every 18 months, Dr. Schaffer foresaw that the most profound impact on corporate computing would be a positive online user experience – the ability for a user to get the job done efficiently, easily, and without frustration.

Dr. Schaffer's book, *Institutionalization of UX: A Step-by-Step Guide to a User Experience Practice*, provides a roadmap for companies to follow in order to make usability a systematic, routine practice throughout their organizations. Dr. Schaffer also co-developed The HFI Framework™, the only ISO-certifiable process for user-centered design, built on principles from human-computer interaction, ergonomics, psychology, computer science, and marketing.

Dr. Schaffer has completed projects for more than one hundred Fortune 500 clients, providing user experience design consulting and training. He has recently been traveling the world teaching HFI's course, How to Design for Persuasion, Emotion, and Trust.

Dr. Schaffer is a member of the Human Factors and Ergonomics Society and a Certified Professional Ergonomist.

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