Interaction Design, Society and the Public Sector

Introduction

Jon Kolko
Design is in the middle of an enormous professional shift.
For years, design was about form giving, aesthetics, and styling.
During this period, design was a big deal – to designers.
As technology got cheaper, our world got more complicated. Designers made things easier to use.
In Silicon Valley, designers emerge as rock stars

Fri, Apr 13 2012

By Gerry Shih

SAN FRANCISCO (Reuters) - Five years ago, Justin Edmund arrived at Carnegie Mellon University, a floppy-haired freshman, with artistic talent and dreams of joining a venerable design firm like IDEO or Frog. But during his sophomore year, a recruiting pitch from a Facebook employee turned his head, and prompted a detour of his ambitions.

"It didn't even occur to me that working at a tech company was something I could do," Edmund said. "It switched my trajectory completely."

So, in 2010, Edmund interned on Facebook's burgeoning design team, and, after graduation, landed a job at Pinterest. Today, at just 21, he has played a central role in building the virtual scrapbooking site into one of the hottest startups on the Internet.

Edmund isn't alone. Inspired by the legacy of Steve Jobs and lured by the promise of the current tech boom, young designers are flocking to Silicon Valley, where they're shaking up a scene long dominated by engineers and programmers.

The new breed of "user experience" designers - part sketch artist, part programmer, with a dash of behavioral scientist thrown in - are some of the most sought-after employees in technology. Entry-level interactive designers at startups are commanding salaries easily topping $90,000, almost twice the median pay for primarily print designers of about $45,000, according to a recent survey by the American Institute of Graphic Arts.

IN-HOUSE TALENT

Top venture capital firms, from Google Ventures to Andreessen Horowitz, are hiring in-house designers to help the young startups in their portfolios. One angel investor has even established a Designer Fund to identify startups driven by design talent.

To feed demand, new digital design programs have sprouted over the past two years, at both elite engineering universities such as Stanford, and art schools like the California College of the Arts. The School of Visual Arts in New York has seen applications for its digital design program soar by 43 percent since its inception in 2009.

Indeed, the flourishing of digital design reflects the Valley's evolution, entrepreneurs and investors say.

In the latest generation of innovation, heavily concentrated in applications for mobile devices and social networks, and relying on ever-cheaper cloud-computing services, success depends not on white-bang technology, but rather, on a subtle sense of how to make features useful and engaging.

The most recent example is Instagram, the slick photo-sharing app that was snapped up by Facebook earlier this week for $1 billion. The 12-person company's founding duo includes Kevin Systrom, who majored in Management Science and Engineering at Stanford, and Mike Krieger, who describes his background as "Human-Computer Interaction and User Experience."

"There's a growing recognition that it's critical for a company's first employees to be people with great design sense," said Eric Feng, founder of Hulu and Enly, an evite- and photo-sharing company, and a former partner at venture capital firm Kleiner Perkins Caufield and Byers. "That's true even if you look at larger companies like Google and Facebook, who have moved in that direction."

To be sure, engineers still occupy a rarerfied perch at the top of the Silicon Valley hierarchy, and are the target of the fiercest recruiting battles.

VISUAL APPEAL

But even Facebook, famous for a culture that glorifies the "hacker way," now talks of integrating "design thinking" into its products and has steadily beefed up its design studio.

From her team's brightly-colored studio in Facebook's Menlo Park offices, design chief Kate Aronowitz dispatches designers who are paired with an engineer, a product manager and sometimes a researcher to conceive new products or improve features such as user profiles or messages.

The emphasis of design at the top with CEO Mark Zuckerberg, who has stressed the importance of building a crack design team, Aronowitz said.

In a highly competitive recruiting climate, it's not uncommon for even Facebook to approach top talent playing hard to get. For the toughest cases, Aronowitz plays her trump card. She asks Zuckerberg to place a personal phone call.

"When they're not returning my calls, that tends to work," said Aronowitz, who herself was poached by Zuckerberg from LinkedIn in 2009. "I'm lucky to have that in my back pocket."

The spotlight fell squarely on the design team last November, when Facebook credited Nicholas Felton, one of its data-visualization experts, with conceiving the Timeline interface which has become one of Facebook's most significant overhauls in recent years.

For fledgling startups, it's even more critical to understand how design affects user behavior, said Dave McClure, an angel investor who cited the example of Mint, an online tool for managing personal finances acquired by Intuit in 2009.

Jason Puloffi, the startup's founder, lent the Mint interface "much more warmth," which was crucial for a startup that dealt with sensitive information, McClure said. Design, he added, "made the app feel trustworthy, comforting, functional."

Last year, McClure put down money to create the Designer Fund, a program that identifies entrepreneurs with strong design backgrounds and offers seed money and mentoring from experienced founders like Puloffi and Chad Hurley, of YouTube. The fund, headed by Enrique Allen, a 25-year-old graduate of Stanford's design school, has partnered with more established venture investment firms like Khosla Ventures, Andreessen Horowitz and Kleiner Perkins.

"We're reshaping a lot of how you build a company," McClure said. But, he added, "there's still a resource and talent shortage" for interaction designers.

SCOUTING FOR ARTISTS

Finding exceptional design talent, though, is not a simple matter. Last year, Kelvin Wang, the co-founder of Ridejoy, a service that arranges carpools, said he spent several incredibly hard months recruiting an interaction designer.

Dirk Cleveland of Riviera Partners, a Silicon Valley headhunting firm, said startups have trouble finding a design "unicorn" - the rare designer with the interactive design skills that many app startups require.

"It's literally the toughest position to fill right now," Cleveland said. "That equation of supply and demand is out of balance. Engineering education has progressed, and startups have learned to do more with limited resources, but I don't think that's the case for design."

Even though he sifted through 150 resumes, Wang said, "There are so many startups and so many tech companies that are snapshing them up. It's slightly ridiculous."

Ridejoy interviewed candidates from Toronto, New York and the Midwest, and ultimately hired a Parsons School of Design graduate living in Omaha.
The new breed of ‘user experience’ designers – part sketch artist, part programmer, with a dash of behavioural scientist thrown in – are some of the most sought-after employees in technology.
Design was also at the heart of the “innovation” conversation.
THE POWER OF DESIGN

A tiny firm called IDEO redefined good design by creating experiences, not just products. Now it’s changing the way companies innovate.

BY BRUCE NORMAN

In this issue: Introducing our innovation and design quarterly

Innovation Champions
The new breed of managers and their radical cultures of creativity
Innovation gave us a seat at the big-kids table.
Design infiltrates the boardroom with the emergence of the 'CDO'

This is a guest post by Mark Curtis, Chief Client Officer at service design agency Fjord

Design is finally having its day. For the past few decades, design was seen as an afterthought, lumped together with marketing. Yet this is about to change. Just as the 1970s brought on the advent of the role of Chief Marketing Officer, the Chief Design Officer is an emerging role that is gaining quick entry into the C-suite.

The Chief Marketing Officer (CMO) role was introduced as a response to the public's positive reactions to branding, advertising, and (therefore) marketing. I believe we are witnessing a similar shift now, as a generation that has always been immersed in powerful marketing moves to social media and a greater appreciation for aesthetics and design.
Design infiltrates the boardroom with the emergence of the CDO.

“The CDO is vital in helping companies take the lead to understand customers, define products and services, and to help build marketing and innovation into services...”

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Now, design-as-innovation is recognized as a driver of economic growth and policy success.
A Strategy for American Innovation: Securing Our Economic Growth and Prosperity

America’s future economic growth and international competitiveness depend on our capacity to innovate. We can create the jobs and industries of the future by doing what America does best – investing in the creativity and imagination of our people. To win the future, we must out-innovate, out-educate, and out-build the rest of the world. We also must take responsibility for our deficit, by investing in what makes America stronger, cutting what doesn’t, and reforming how our government operates so it focuses on promoting our economic growth and preparing for the challenges of a new century.

President Obama’s Strategy for American Innovation seeks to harness the inherent ingenuity of the American people to ensure that our economic growth is rapid, broad-based, and sustained. Innovation-based economic growth will bring greater income, higher quality jobs, and improved health and quality of life to all U.S. citizens. The Strategy for American Innovation provides a multifaceted, commonsense, and sustained approach to ensuring America’s future prosperity.

This document updates the Innovation Strategy issued in September 2009, detailing how the Administration, the American people, and American businesses can work together to strengthen our long-run economic growth. It begins by explaining the essential role of innovation in our past and future prosperity; the central importance of the...
“To win the future, we must out-innovate, out-educate, and out-build the rest of the world.”
"Technology and Innovation driven" Industrial Development Policy

In response to the rise of the knowledge economy, the MOEA will devote its efforts to the promotion of a technology and innovation driven industrial development policy to secure Taiwan’s competitive position in the new century and lay a stable foundation for the country’s industrial growth.

1. **Taiwan's world-leading position in technology and innovation.**
   In its most recent report, the World Economic Forum (WEF) ranked Taiwan fourth globally in terms of growth competitiveness, second on the technology index and the innovation index, underscoring the strength of Taiwan's innovative R&D.

2. **Taiwan spends 3% of GDP on R&D, providing a strong support for industrial growth.**
   In order to develop Taiwan as the most attractive base for innovative R&D in Asia, the government aims to increase R&D spending to 3% of GDP by 2006, putting Taiwan on par with developed countries. In 2004, the government implemented the Advanced Technology Programs with an aim to boost R&D spending by nearly 11% over the 2003 level, thereby helping Taiwan to strengthen innovative and forward-looking R&D and industrial results.

3. **The "Two-Trillion and Twin-Star Industries" solidify Taiwan’s leading position in hi-tech industry.**
   The MOEA designates semiconductor industry and color-image display industry as the "Two-Trillion" industries; digital content industry, the "Twin-Star" industries, to drive Taiwan’s high-technology industry.
"The MOEA will devote its efforts to the promotion of a technology and innovation driven industrial development policy..."
But...
Chapter 4

SPEAKING WITH ALL due respect to the people here, I confess that nothing could have prepared me for the cutthroat manner of my arrival in this port.” Mr. Robert Hackleman, Sir James’s secretary, said. His voice was nervous, paced up and down the room, his hands and fingers clenched into fists. “I had to disembark early, and cursed the slender, dark, foreign-looking wife who accompanied him with this chair and stared at Almonte.”

Sir James sat behind his desk, his face contorted in annoyance. “You should obviously be here in time for the meeting,” he said quietly. “In the capital of the world, the law of the land and the law of the World.” Hackleman nodded. “The law of the World.”

“Sir James,” he said, “you could not have been a pirate. You’re not a pirate. You’re not a man who adventure is a way of life. You’re not the man who has wandered the high seas, seen at the gallows of High and Low, and now a pirate may be found anywhere.”

Sir James sighed. “If you disembarked earlier, you might have seen what I’ve seen.” He sighed again. “Sit down,” he said, looking around at the empty chairs. “I need to confirm yourself in my judgment as to whether you already appear to be.”

End of Chapter 4
IDSA2011 Best In Show!
“The leading social network for people with wavy, curly, and kinky hair...”
NYC-based Kohort raised $3M seed funding for its social media startup

“Kohort allows for hierarchical groups, so groups can have as many subgroups as a user would like.”

The round was led by IA Ventures, and backed others investors including High Peaks Venture Partners, Contour Venture Partners, and angel group Anduin Ventures.

IA Venture is famous for investments in early-stage companies that focus in developing high-tech tools and technologies for data mining and data cleansing. It has invested in many such companies; PlaceIQ, ThinkNear, SavingStar, and MetaMarkets, to mention a few.
Color Looks To Reinvent Social Interaction With Its Mobile Photo App

“Broadcast live from your phone to Facebook.”

That's how much a brand new startup called Color has to work with. Your eyebrows should already be raised, and here's something to keep them fixed there: this is the most money Sequoia has ever invested in a pre-launch startup. Or, as the Color team put it, “That's more than they gave Google.”

But the founding team goes a long way toward
We’re really good at designing stuff.
We’re really bad at picking what to design.
Sometimes when nature calls, you may not be in the most convenient place to answer.

With Have2P, you can use your iPhone, iPod touch, or Android phone to quickly find listings of nearby spots that have restrooms. And Version 2 makes it easier than ever!

- Automatically detects your current location to find restrooms in the local area
- Scan helpful tips noted by others, like whether the restroom is for patrons only, if it has a changing table, and how clean it is
- An urgency detector senses when you (and the phone) are shaking and starts a fresh search for nearby restrooms
- Use restroom ratings for when you actually have a choice
- See restrooms on a map
- Add new restrooms to share with others
- Find other places nearby with expanded search capabilities
- Avoid businesses that have been flagged for having no public restrooms – saving you precious time

See what people are saying about Have2P:

- Selected as New York Times APP OF THE WEEK
- Featured on Gizmodo
- Reviewed by BuyMeAniPhone.com
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### iPhone Apps 1-6 of 10 See All ›

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* Indicates an app designed for both iPhone and iPad

Apple ID: jkolko@gmail.com

Redeem

Support

iTunes Store Terms and Conditions...
We work on some really stupid stuff.
But these selection problems may not be our fault.
Design lives in a context of business – which often means:

consensus decision making
Design lives in a context of business – which often means:

corporate hierarchy
Design lives in a context of business – which often means:

quarterly profits
It is the customer who determines what a business is ... what the business thinks it produces is not of first importance."

Peter Drucker, 1954
Author & Management Consultant
What Is The Idea?

We have only started on our development of our country—we have not as yet, with all our talk of wonderful progress, done more than scratch the surface. The progress has been wonderful enough—but when we compare what we have done with what there is to do, then our past accomplishments are as nothing. When we consider that more power is used merely in ploughing the soil than is used in all the industrial establishments of the country put together, an inkling comes of how much opportunity there is ahead. And now, with so many countries of the world in ferment and with so much unrest every where, is an excellent time to suggest something of the things that may be done in the light of what has been done.

When one speaks of increasing power, machinery, and industry there comes up a picture of a cold, metallic sort of world in which great factories will drive away the trees, the flowers, the birds, and the green fields. And that then we shall have a world composed of metal machines and human machines. With all of that I do not agree. I think that unless we know more about machines and their use, unless we better understand the mechanical portion of life, we cannot have the time to enjoy the trees, and the birds, and the flowers, and the green fields.

I think that we have already done too much toward banishing the pleasant things from life by thinking that there is some opposition between living and providing the means of living. We waste so much time and energy that we have little left over in which to enjoy ourselves.

Power and machinery, money and goods, are useful only as they set us free to live. They are but means to an end. For instance, I do not consider the machines which bear my name simply as machines. If that was all there was to it I would do something else. I take them as concrete evidence of the working out of a theory of business, which I hope is something more than a theory of business—a theory that looks toward making this world a better place in which to live. The fact that the commercial success of the Ford Motor Company has been most unusual is important only because it serves to demon-
Our organizational structures should enable powerful & positive change.
Our existing business structures seem to limit powerful & positive change.
Maybe we need to get out of our existing business structures.
Well-Structured Problems  Ill-Structured Problems  Wicked Problems
In a well structured problem, all of these are true:

- We can test our solution.
- We can identify problem, goal, and interim states.
- We can identify solution steps.
- We can identify domain knowledge.
- We can solve the problem while obeying the laws of nature.
- We can solve the problem using only practical levels of effort.

Herb Simon, 1973
Well-Structured Problems  

Ill-Structured Problems  

Wicked Problems

In an ill-structured problem, some of these are true:

- We cannot test our solution, or cannot test it easily.
- We cannot easily identify problem, goal, or interim states.
- We cannot identify all of the solution steps.
- We cannot identify domain knowledge (it may be tacit).
- We may be constrained by the laws of nature.
- Solutioning may outweigh practical efforts.

Herb Simon, 1973
<table>
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<tr>
<th>Well-Structured Problems</th>
<th>Ill-Structured Problems</th>
<th>Wicked Problems</th>
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In a wicked problem, the following are true:

Wicked problems have no definitive formulation.  
Wicked problems have no criteria upon which to determine “solving”.  
Solutions to wicked problems can only be good or bad.  
There are no complete list of applicable "moves" for a solution.  
There are always more than one explanation for a wicked problem.  
Every wicked problem is a symptom of another problem.  
No solution of a wicked problem has a definitive, scientific test.  
Every wicked problem is unique.

Horst Rittel, 1973
These problems are not equally worth your time.
This course is about understanding the *theory* behind the shift away from limiting organizational structures, and the *theory* of wicked problems.
Design, Society and the Public Sector

This class emphasizes the theoretical, social and political relationships between design and the culture of society. Students learn theory and discourse related to designing for the public sector, specifically as related to ill-defined problem solving and the ethical obligations of designers.
Design, Society and the Public Sector

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Why is theory important?
Design, Society and the Public Sector

Section 1: Ethics & Responsibility
Section 2: The Role of Research
Section 3: The Poor
Section 4: Design Thinking
This section explores the following questions:
1. What is the role of the designer in shaping culture?
2. Given that the designer’s impact on society is diffused, to what extent can a single designer take the blame or claim responsibility for their work?
3. What are the problems with design-driven consumption? What can be done to mitigate these problems?
4. What responsibility do consumers have?
5. What responsibility do designers have?
This section explores the following questions:
1. What does it mean to design “for” someone?
2. What does it mean to design “with” someone?
3. Are designers ever in a truly empathetic role? How? When?
4. Is there a boundary to the designer’s reach? Where? When?
5. What are methods for intervening in society?
6. What are the benefits and challenges with these methods?
This section explores the following questions:
1. What role does technology play in driving society and culture change?
2. What are the economic benefits of technology for the lower-class?
3. What are the economic challenges of technology for the lower-class?
Design, Society and the Public Sector

Section 1: Ethics & Responsibility
Section 2: The Role of Research
Section 3: The Poor
Section 4: Design Thinking

This section explores the following questions:
1. What are methods and theories related to complex problem solving?
2. What are the connections between problem solving and interaction design?
3. What are the connections between problem solving and cognitive psychology?
4. What is unique about using design to approach complex problems?
Design, Society and the Public Sector

Section 1: Ethics & Responsibility
Section 2: The Role of Research
Section 3: The Poor
Section 4: Design Thinking

For each section, we’ll:

1. Read approaches, theories, and rhetoric from designers, engineers, politicians, technologists...
2. Discuss the arguments, and consider them in the context of the section theme
3. Create a story, visualizing the viewpoints of the authors to support a main point

Our goal is to be able to articulately discuss and debate issues of design in the context of designing for the public good.

Why is this an important goal?
Design, Society and the Public Sector

http://www.ac4d.com/home/curriculum/idse102-interaction-design-society-public-sector/

login: AC4D
password: AC4D
Design, Society and the Public Sector

Section 1:
Ethics & Responsibility

What is a consumptive culture?

Do we have one in the United States?

Where did it come from?

Is it good, or bad, or neutral?
Design, Society and the Public Sector

Section 1:
Ethics & Responsibility

In class, in groups of 3:

1. Provide 5 reasons to support the argument that designers directly drive consumption
2. Provide 5 reasons to support the argument that advertisers directly drive consumption
3. Provide 5 reasons to support the argument that consumers directly drive consumption
4. Provide 5 reasons to support the argument that government directly drives consumption