IBM DESIGN

A New Era at IBM.
Lean UX leading the way.

Ariadna Font Llitjós, PhD
UX Lead and Development Manager, Big Data

@quicola @ibmdesign #leanux #designthinking
Creating a Consistent Culture of Design
Good design is good business.

—Thomas Watson Jr.
Chief Executive Officer, 1973
Business process management
January 1, 2011

WebSphere Lombardi Edition
WebSphere Dynamic Process Edition
WebSphere Process Server
WebSphere Integration Developer
WebSphere Business Modeler
WebSphere Business Compass
WebSphere Business Monitor
WebSphere Business Fabric
Lombardi Blueprint
IBM BlueWorks
WebSphere ILOG JRules
WebSphere Business Events
WebSphere Decision Server
WebSphere ILOG Rule Team Server
WebSphere Business Events for eXtreme Scale
WebSphere Decision Validation Server
WebSphere ILOG Rules for COBOL
WebSphere Rule Team Server for .NET
WebSphere ILOG Rules for .NET
WebSphere ILOG RSO
WebSphere ILOG Rule Studio for Scorecard Modeler
Business process management

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IBM Business Process Manager
IBM Operational Decision Manager
IBM Blueworks Live
IBM Business Monitor
Consistent, useful and pleasing

IBM Business Process Manager

IBM Operational Decision Manager

IBM Blueworks Live
CAN’T
DICTATE
GREAT OUTCOMES
Not a new way of acting, a new way of thinking
Clear Conceptual Models

Decisions, not Process

Peer-Reviewed Artifacts
Clear Conceptual Models

Decisions, not Process

Peer-Reviewed Artifacts
Clear Conceptual Models
Decisions, not Process
Peer-Reviewed Artifacts
COMMANDER'S INTENT
COMMANDER’S INTENT

“a framework for freedom to act”
CAN’T DICTATE GREAT OUTCOMES
PREPARE FOR GREAT OUTCOMES
IBM DESIGN THINKING

Defines our approach to creating compelling personal value propositions and engaging user experiences
“Design Thinking is generally considered the ability to combine empathy for the context of a problem, creativity in the generation of insights and solutions, and rationality to analyze and fit solutions to the context.”

— Wikipedia
IBM Design Thinking is about creating great experiences for our users.
This is not a user experience
This is a user experience
# IBM Design Thinking Collaboration Model

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Saturday, August 3, 13
# IBM Design Thinking Collaboration Model

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### IBM Design Thinking Collaboration Model

**Product management**

How do I engage with Design and Engineering to drive business results?

**Sponsor client/user**

What’s in it for me?

**Design**


**Engineering**


### IBM Design Thinking Collaboration Model

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**ARIADNA FONT | @QUICOLA @IBMDESIGN @LEANUX**
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IBM Design Thinking Collaboration Model

- Product Management decides what market problems to solve

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IBM Design Thinking Collaboration Model

- Release Hills defined (PM)
- Back-of-envelope Metrics reviewed (PM)
- Playback strategy drafted (PM)

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Saturday, August 3, 13
Release Hills focus and empower teams
Less micro-management and more iteration
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EXAMPLE OF A RELEASE HILL:
“A business user should be able to create and start using a process application in less than 60 seconds”
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“Given the product, what are the hills”

Hill 1
Hill 2
Hill 3
Serviceability

“Given the hills, how best to allocate the resources”

Serviceability 15%

Hill 1 20%
Hill 2 45%
Hill 3 20%

“Given the investment, how best to achieve the objective”

Serviceability 15%

Hill 1 20%
Hill 3 20%
IBM Design Thinking Collaboration Model

- Understand users, stories, requirements (PM, Design)
- Rapidly explore and converge the design (Design, PM, Engineering)
- Align on containable scope (Engineering, PM, Design)

Kick-Off

- Product management
  - Define the mission
- Sponsor client/user
- Design
  - Discover and Envision
- Engineering
personas

user stories & interactions

visual prototypes

sketches
release blueprint
IBM Design Thinking Collaboration Model

- Design played back by Sponsor User (PM, Design and Engineering attend)
- Alignment across team on what is to be delivered to market
- Robust Release Blueprint and Design Artifacts shared in the wiki (PM, Design)
Deep engagement with Sponsor Clients/Users
Grounds project in the needs and domain knowledge of real users

- Product Management signs up Sponsor Clients/Users for each Release Hill
  - E.g., Client = Ford; User = Steve Smith

- Sponsor Users make themselves available for user research purposes, and attend and (where practical) run Playbacks
  - Significant time commitment in return for ability to strongly influence product/solution outcomes

Who to recruit
- Actual customers (clients) in target roles
- Services (preferably GBS, or lab services)
- Partners (delivery and sales partners)
- Technical sales (pre-/post-sales)

- Sponsor Clients are not the only option: Typically the team does other discovery and evaluation work to reach a larger population of target users
Learnings from Playback 0

- Involve key stakeholders early and often
- Refine business roles (based on user research, new information, clearer vision, etc.)
- Design can be low-fidelity, but most important is high-fidelity of the story
- Need a clear, realistic story
Learnings from Playback 0

- Be honest with your design artifacts (don’t try to show more details and make more decisions than the team has had time to discuss, assess feasibility for)

- Involve dev managers, as well as tech leads and as many devs as possible (personas = different managers and developers)

- Force alignment

- Maximize learning and avoid waste (99% of the work leading to playback 0 was for the release, not for the playback itself)
IBM Design Thinking Collaboration Model

- Code and test stories in small iterations/sprints (Engineering)
- Refine and finalize designs ahead of coding (Design)
- Evaluate end-of-iteration builds with users (Design)

Product management: Define the mission

Sponsor client/user

Design: Discover and Envision

Engineering: Build and Refine
IBM Design Thinking Collaboration Model

- Sponsor User plays back major stories (epics) as implemented (PM, D, and E attend)
- Example: Playback 1 = “Happy Path” demo
- Playback of major stories drives integration test ahead of unit test (Engineering)
IBM Design Thinking Collaboration Model

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- Example: Playback 1 = “Happy Path” demo
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Learnings from Playback 1

- High-fidelity mockups

- The more specific, the better

- Extremely powerful and valuable to see everything from beginning to end under one unified story (installer, back-end, front-end)

- Having the sponsor user drive the playback, speaking in his own language, made it materially better than other playbacks.
Quotes from Playback 1

Charlie Hill, CTO Design:

“This is great. Great Playback.”

“Clean UI.”

“Voice overs are really great, it adds authenticity (they help tell the story).”

(after playback)

“To me it’s like nirvana, you’re getting a non-mediated demo (directly from the user).”
Manuel Corniel, Vivisimo Sales Exec:

“This is truly amazing work. I just want to thank you guys. I personally have never seen this kinds of teaching in IBM. It’s a great way of teaching.”

“The way you went through this mock scenario, I’d love to have you present this to the sales teams the same way, it tells the entire story...”

“The last hour I learned a lot, from the true value of what you work on.”

“It’s a way to boost the confidence of the sales team.”
IBM Design Thinking Collaboration Model

- Sponsor user plays back full user experience starting with install/sign up (PM, Design and Engineering attend)
Continuous improvement and DevOps

Example: Cycle repeated over six months = three 2-month releases

- Shorter deployment cycles (before or after release to production) make it easier to incorporate user feedback and/or usage data
  - Rapidly learn from actual usage and feed changes into next iteration/release
  - Data-driven design: Quantify effects of some (but not all) design changes

- With shorter release cycles, the full design cycle is repeated every N releases, e.g., every 6 months, instead of every release
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IBM Design Thinking: Scaling great design
Key building blocks for consistently great design outcomes
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Sponsor Clients/Users
Continuous engagement with people in target roles and industry domains
IBM Design Thinking: Scaling great design
Key building blocks for consistently great design outcomes

**Sponsor Clients/Users**
Continuous engagement with people in target roles and industry domains

**Release Hills**
Focused investment, empowered teams
IBM Design Thinking: Scaling great design
Key building blocks for consistently great design outcomes

**Sponsor Clients/ Users**
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**Playbacks**
Relentless focus on user value and experience throughout the development process

- Story-driven milestones led by users
- Playback Zero: Align on product vision before coding
- Interim Playbacks: Demo stories in executable code

**Release Hills**
Focused investment, empowered teams

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"Given the product, what are the hills?"

"Given the hills, how best to allocate the resources?"
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Efficient cross-functional collaboration around peer-reviewed artifacts
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**IBM Design Thinking Metrics**
Visibility into objective operational data

- Organization data
- Skills ratios
- Design team skills data
- Release Blueprint URL
- Release Hills
- Lead Users
- Dependencies
IBM Designcamp
### Universal and transformative curriculum
Learn a common mindset, language, and tools

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Immersive, high-energy environment
Collaboration and leadership lessons built in

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- Experiential hands-on activities
- Collaborative cross-functional workshops
- Immersive social experiences
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Immersive, high-energy environment
Collaboration and leadership lessons built in

Available for all audiences
- 1 week all IBMers
- 2 weeks professional hires
- 3 months college hires

Product Managers
Engineers
Designers
# IBM Designcamp

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| Product Managers | Engineers | Designers |

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*Intense, fun... effective!*
Envisioning the IBM Portfolio

The IBM Portfolio

WORKS TOGETHER

Maps
Tight integration across core technologies
Interoperability with complementary technologies

WORKS THE SAME

Language
Common look and feel
Enables easy skills transfer

WORKS FOR ME

Personas
Focuses on the user and the user’s story
Spans product lifecycle (learn, buy, adopt, maintain)

Enterprise scale and security
1

430,000
CULTURE
A strict observance of the written laws is doubtless one of the high duties of a good citizen, but it is not the highest.
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The laws of necessity, of self-preservation, of saving our country when in danger, are of higher obligation. To lose our country by a scrupulous adherence to written law, would be to lose the law itself, with life, liberty, property and all those who are enjoying them with us; thus absurdly sacrificing the end to the means.

— Thomas Jefferson
Q & A
From startup to IBM
Disclaimer:

The views presented in the next part of the talk are my own and don't necessarily represent IBM's positions, strategies or opinions.
Acquisition
June 2012 (TOB - January 2013)

Vivisimo  ➔  IBM, Big Data

Company size  120  ➔  400,000

Engineering size  30  ➔  40+

Cross-functional team size  4  ➔  10 / 12

Enterprise search  ➔  Big Data exploration & visualization

+ many more layers of management
6 years of Agile and Lean practices

Product: Velocity, CXO  InfoSphere Data Explorer, Application Builder
Things that remained the same
› startup culture*

› collaborative design workshops (aka design studios)

› Kanban board

› stories

› daily standups

› demos

› retro
Things that changed
Focused vision and target

vs.

Overstimulating environment & developing market
IBM Design Thinking

Personas

Timeboxed goals

Envision the experience
Collocated Team

vs.

Distributed Team

(still more collocated than most IBM teams)
Non-dedicated design resources

vs.

Dedicated Design resources

(2 UX designers, 2 FED, 2 App devs, 2 backend devs, 2 remote devs)
Access to end users

vs.

Sponsor clients and users
Demo features & functionality

vs.

Demo experience via a story
UX || Dev || PM

vs.

Lean UX (built-in cohesion)
Lean UX

Shared understanding
Cross-functional team
Small, dedicated, collocated
Progress = outcome (not output/artifacts)
Problem-focused teams
Continuous discovery
User-centric design and development (GOOB)
Externalize work
Making over analysis
Learning over growth
Permission to fail
Removing waste
Small batch size
Design & Development Flow
1 Brainstorm and scope as a team
2 Workflow and creating epics
3 Breaking epics down to stories that can be designed / implemented
4 Design, validate, implement, polish design
One day in the Pittsburgh Big Data lab...

Designers and developers at work

Team daily standup
6 Designer shares design and gets feedback from Dev
7 Dev works on implementing the design
8 Dev proudly shows the implementation with the final design to designer
Moral of the Story

One team with shared core values

Daily high-bandwidth communication

Iterate - *don’t let perfection be the enemy of good*
We managed to bring IBM along and also leverage IBM’s channels.
Similar Efforts & Experiences
(Fish Bowl)
Thanks!

@quicola @ibmdesign leanux designtinking