

Andrew Hinton / April 2008 / www.inkblurt.com

EXPLANATIONS FOR SLIDESHARE:

1. This was presented at the IA Summit in 2008 on April 14 in Miami.
2. About 30% is based on previous presentations (by request of summit planners) but the rest is new.
3. I uploaded this as a pdf showing both the notes and the slides; I have no idea how well SlideShare will convert the pdf.
4. In order to read it properly, you'll need to view it 'full screen' since the slides are nearly useless without the notes.
5. The ">>" marks are prompts for builds that the PDF obviously doesn't show; please ignore the time prompts as well.
6. Feel free to quote it or use slides from it, as long as you credit "Andrew Hinton at inkblurt.com"

Thanks for sticking around today. The title, Linkosophy, is a homely word ... and it's admittedly a little tongue-in-cheek, but hopefully it'll make sense as I go on.

So what's Linkosophy? I suppose it can be a lot of things, but today it's going to be about Explaining Information Architecture, and hopefully moving the conversation about it forward.

I Conversation

2 Practice

3 Space

4 Structure

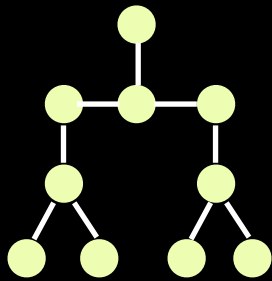
5 Identity

We're going to explore this in five sections.
Conversation, Practice, Space, Structure and Identity.

I Conversation

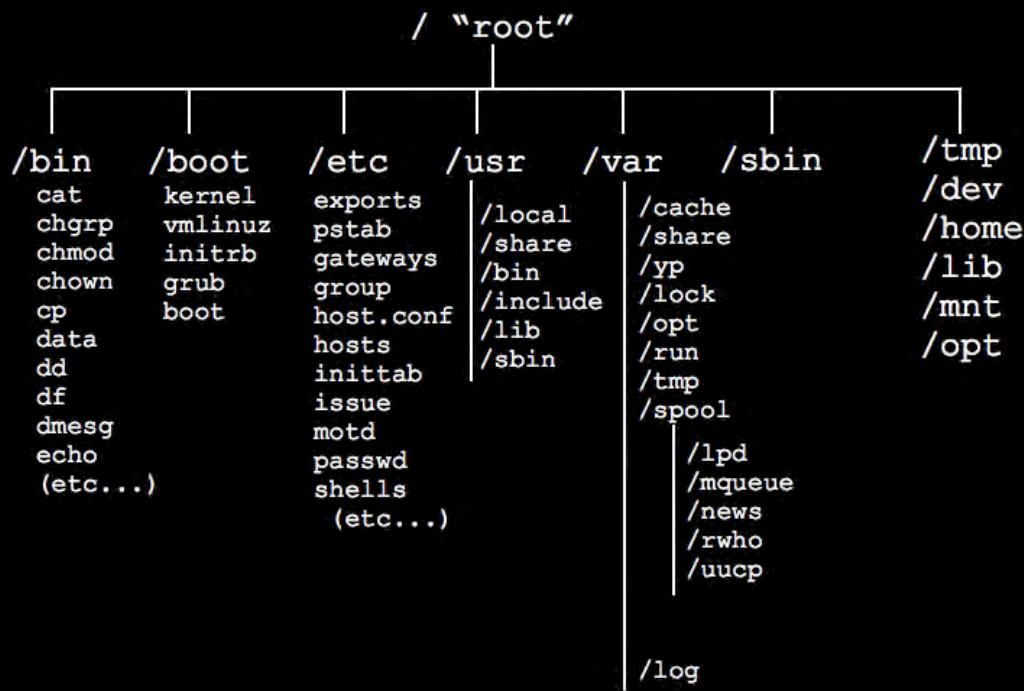
First, Conversation.
(1 minute mark)

A Horribly Oversimplified History of the Internet In about 60 seconds.



Context & Connection:

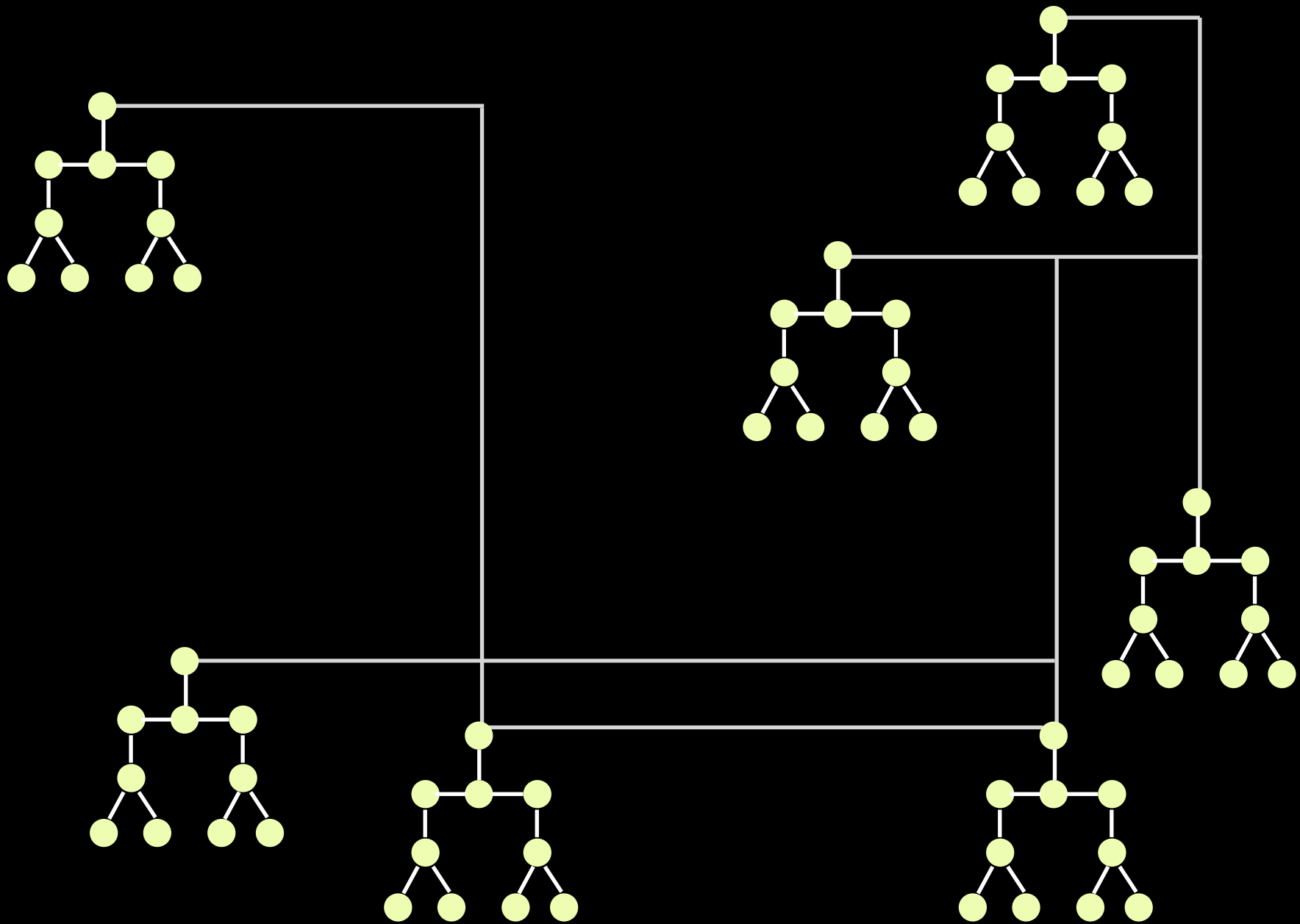
Determined by Admins, & Inherited Hierarchies



It used to be, not that long ago, that a computer was a solitary, highly structured object.

>>
It had a dependable, predictable, and conventional structure. It was organized into a tree hierarchy, and everything had its place in a peculiar, cryptic naming scheme.

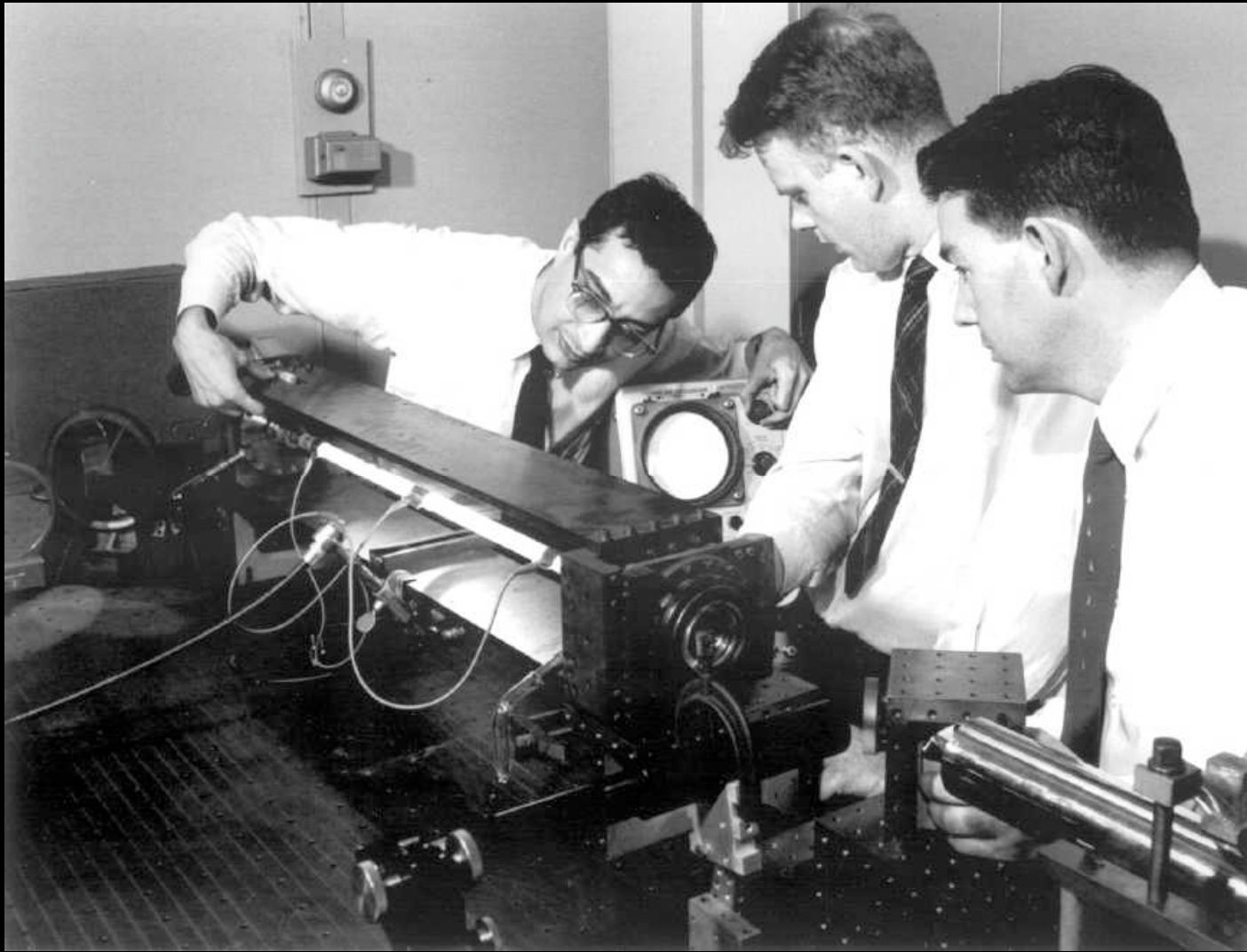
You could move through it like a set of rooms. And if you had the technical knowhow, you knew what these rooms were, and what they were for. If you didn't, then you probably didn't have access to them to begin with.



In time, a bunch of these systems were connected, eventually through the Internet.

If you wanted to see a document or use an application in any system, you still needed to have special permission and use arcane commands to navigate long directory pathways.

Contexts were very clear to the people who used these systems, and connections were very conventional and controlled.

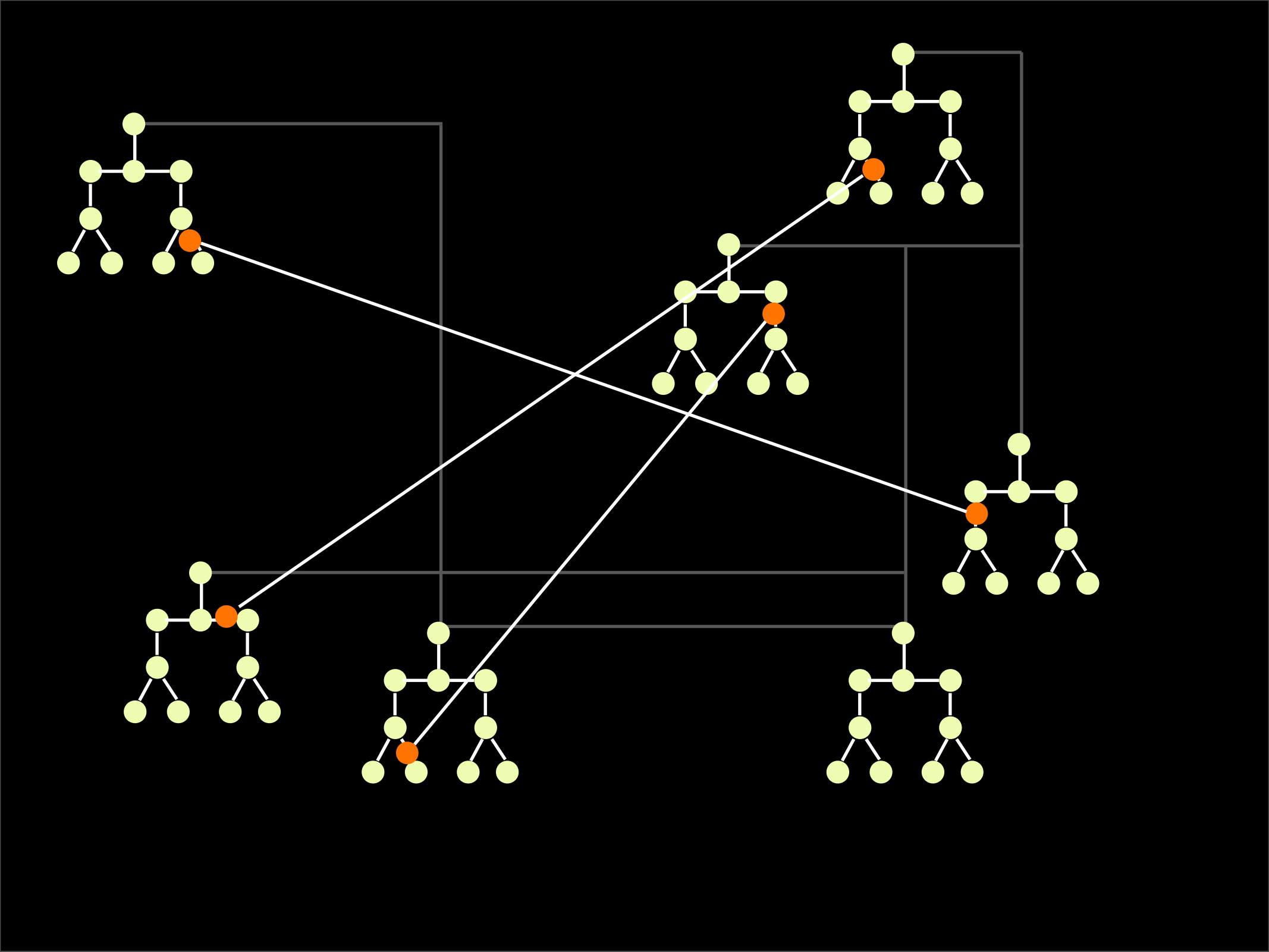


The internet was still the domain of a pretty close-knit crowd.

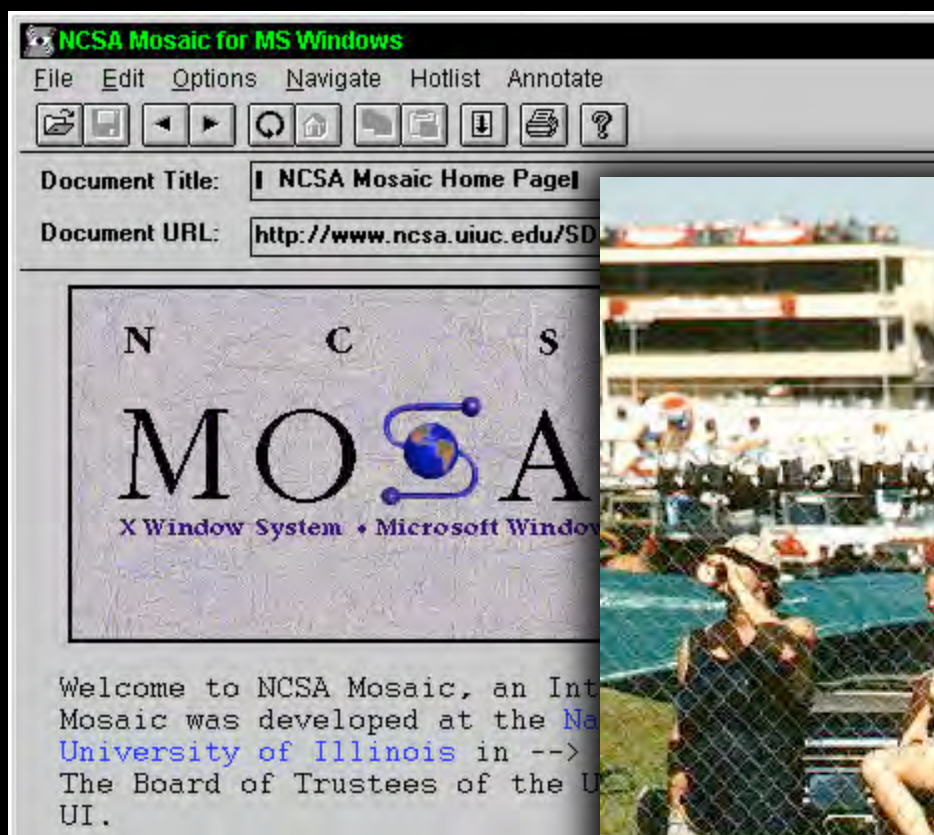
It was mainly focused on science, academics,
and free exchange of ideas among a very homogenous group of people.

But then in the early 90s, the Web came along.

engineers picture from: <http://photonics.usask.ca/photos/>



This allowed tech-savvy people who had system access to freely link across contexts, and connect things however they desired. Wonderful!

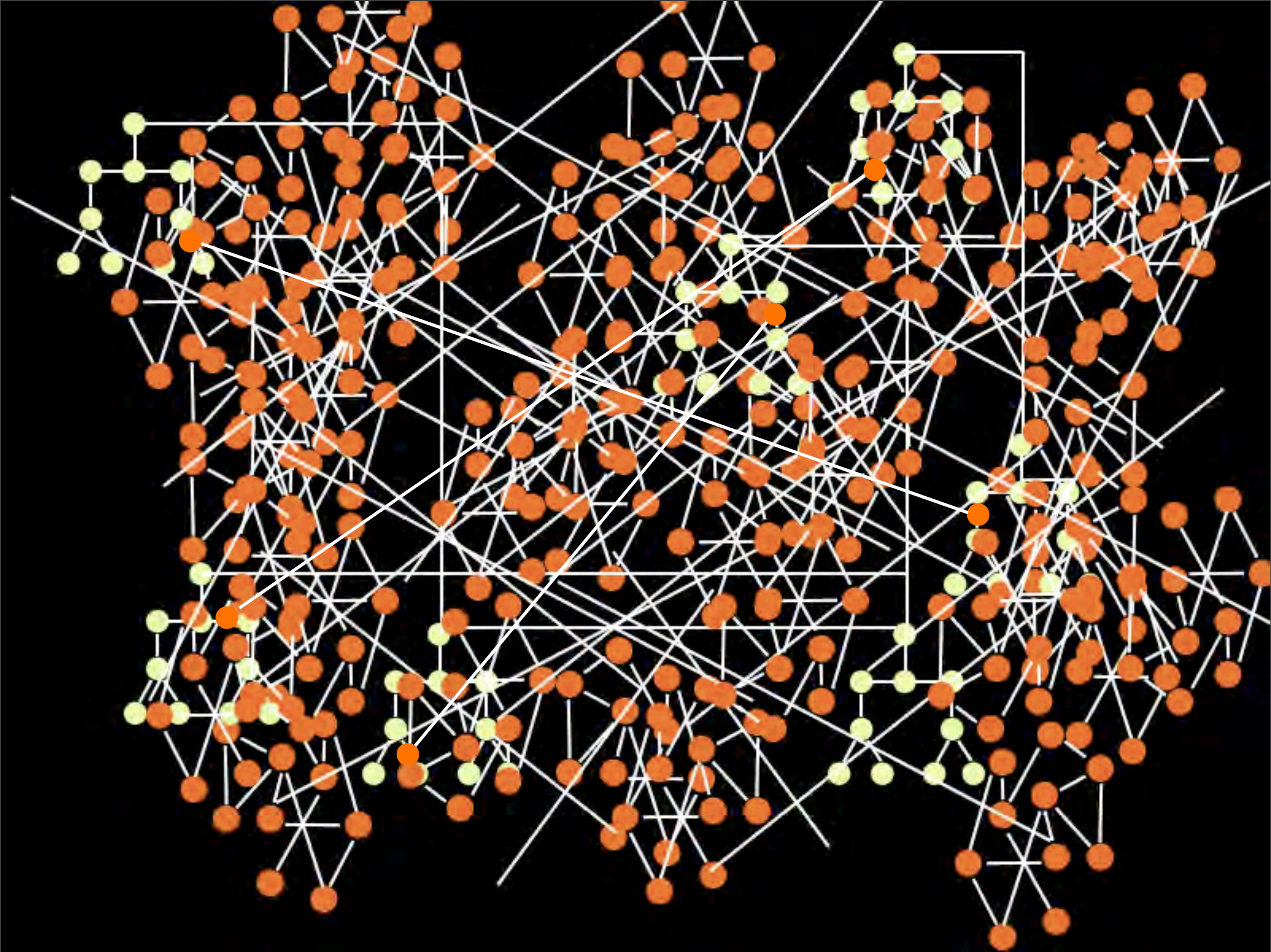


And soon after that, it became much more visual and intuitive.

>>

and soon after THAT, the Internet expanded its user-base.

mosaic: <http://www.nsf.gov/>
race fans: <http://thebuzz-thekisforkerpen.blogspot.com/2008/02/nascar-on-new-road-to-success.html>



Then it seemed that, almost overnight, all hell broke loose.

Suddenly, context and connection weren't all that clear anymore.

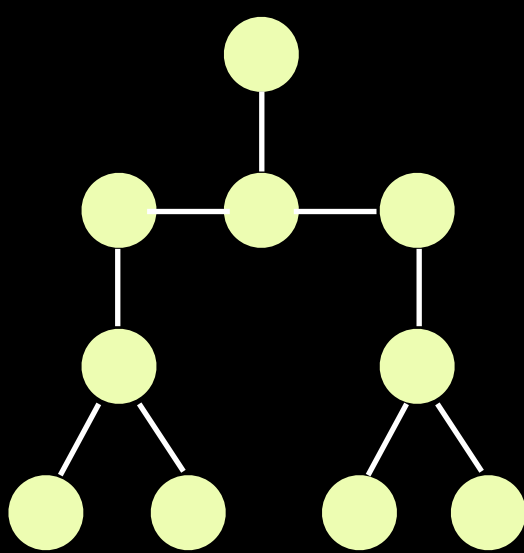
Anything could link anywhere!

What resulted was an incredible explosion of information.

What happened?

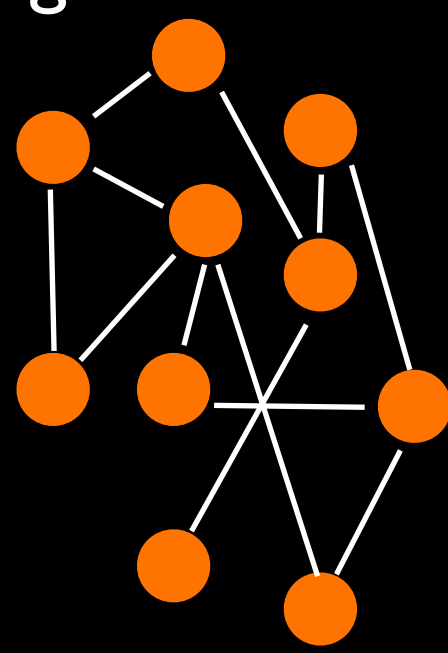
So what happened? What was behind this explosion?

Top-Down Command Hierarchy



Team/Management/Military

Emergent Organic Network



Crowds/Friends/Incidental Networks

To understand what happened, it helps to start with a simplified model for how people organize, as well as how people organize their stuff.

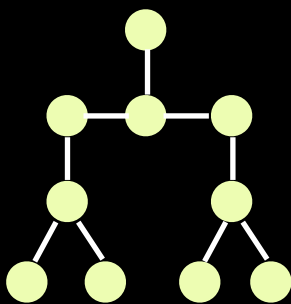
One extreme is very controlled, the other is pretty much anarchy.

To illustrate some key differences between them, we're going to talk about assault rifles.

Closed
Expensive
Complex
Accurate



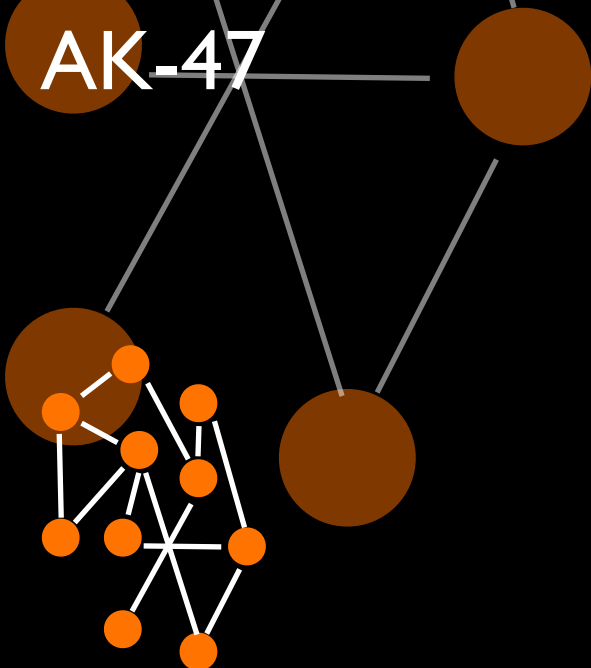
M-16



Open
Inexpensive
Simple
Close Enough



AK-47



250,000 Kills Per Year

If design is mainly about solving problems,
then in this case, the problem is that there are some people who aren't dead yet.

Both of these devices are quite effective at making people dead. But they're really quite different.

>>
The M-16 is a very complex, precise and temperamental and proprietary device, designed for highly controlled conditions and marksmanship.
This weapon doesn't really work very well under any other conditions.

>> The AK47 looks similar, but it's very different.

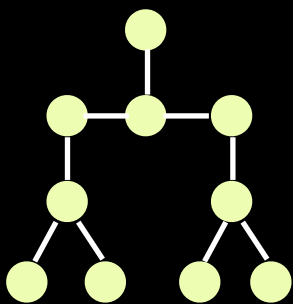
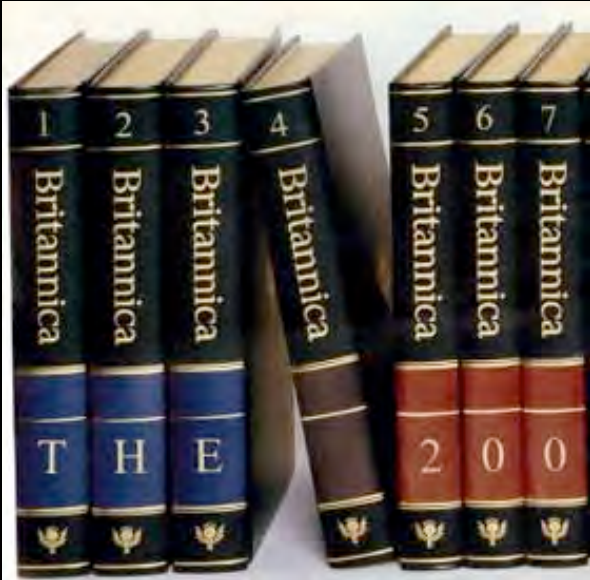
Its design is more open, it's simpler to use and repair, and although it's not as accurate as the M16, it sprays a lot of bullets and it gets close enough.

Because of these few simple differences, these small tweaks in the design,

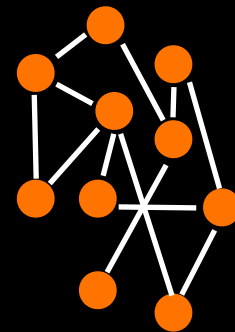
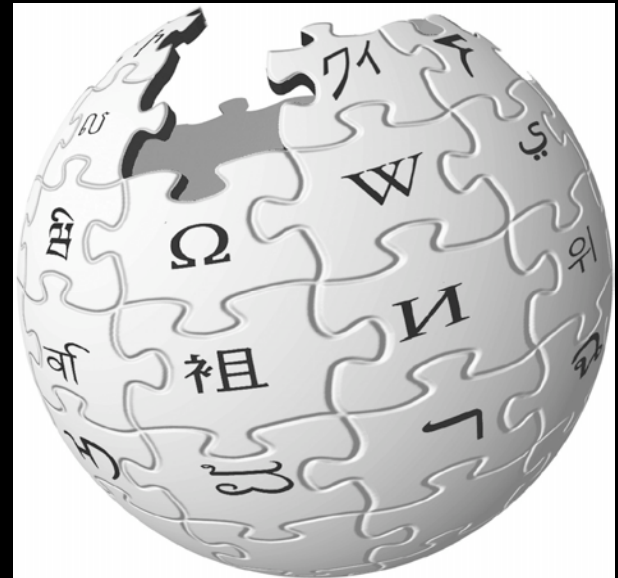
>> the AK 47 has grown globally like mold in a petri dish, and (according to the UN) is used to kill a quarter million human beings annually.

It has become the tool of choice for political strife, insurgencies and 3rd world armies.
What happened was that the AK 47's more open design tapped into a kind of latent emergence ... a sort of potential energy that hadn't been released yet.

Closed
Expensive
Complex
Accurate



Open
Inexpensive
Simple
Close Enough



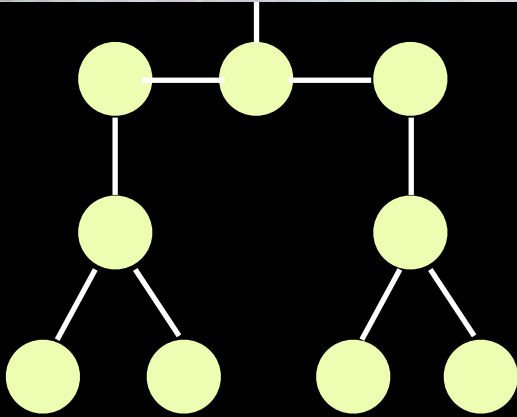
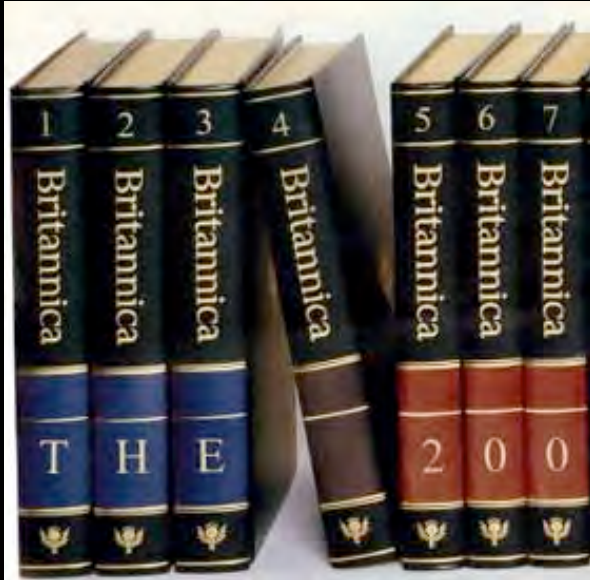
A lot like the web ...

and a particular part of the web we call Wikipedia.

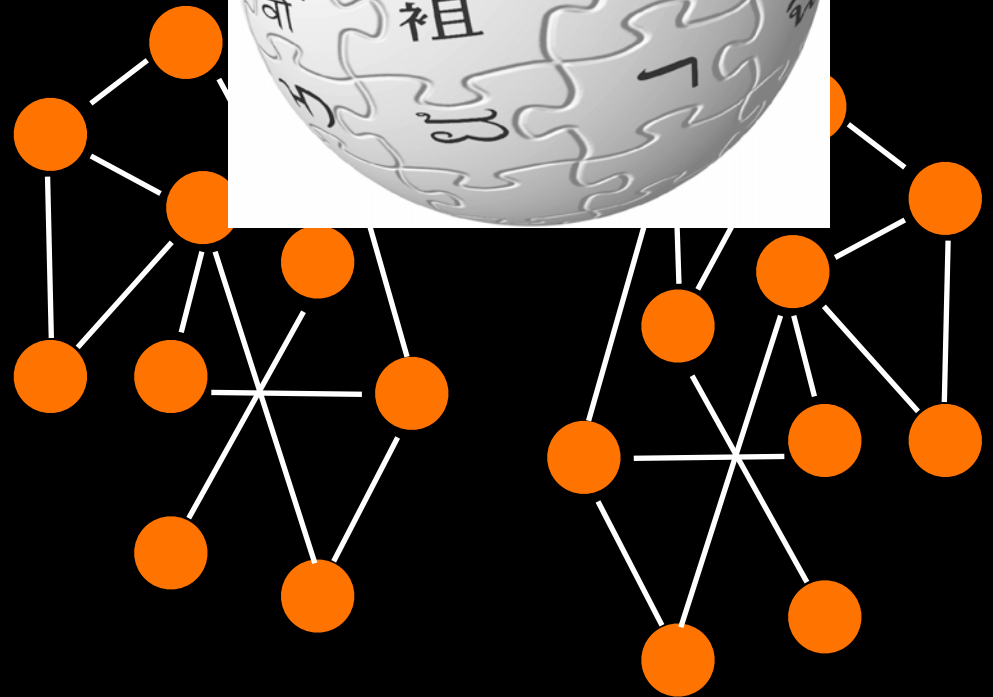
Wikipedia is, in essence, the AK 47 of encyclopedias ... it's more open, it's less expensive, it's much simpler to produce and access, and it gets close enough to accurate that it works just fine.

There is one key difference between them ...

Instruction



Conversation



15

Britannica is a one-way medium, using the best technology available at the time it was begun.

It was designed with the assumption that knowledge is to be handed down from authorities, and dispensed like a product from one container to another.

>>

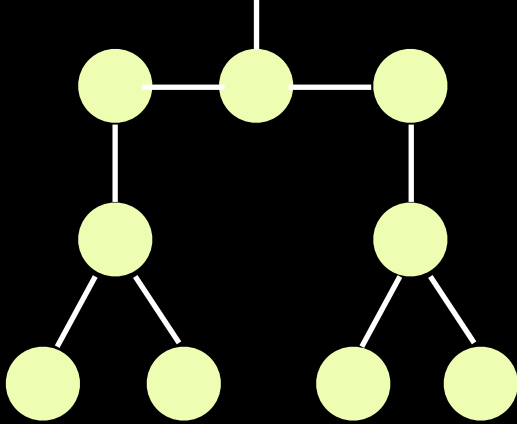
On the other hand, wikipedia is conversational. It lends itself to linking, discussion, collaboration and argument. It fits the natural patterns people have for generating and evolving knowledge to begin with.

But it never would've happened without the web.

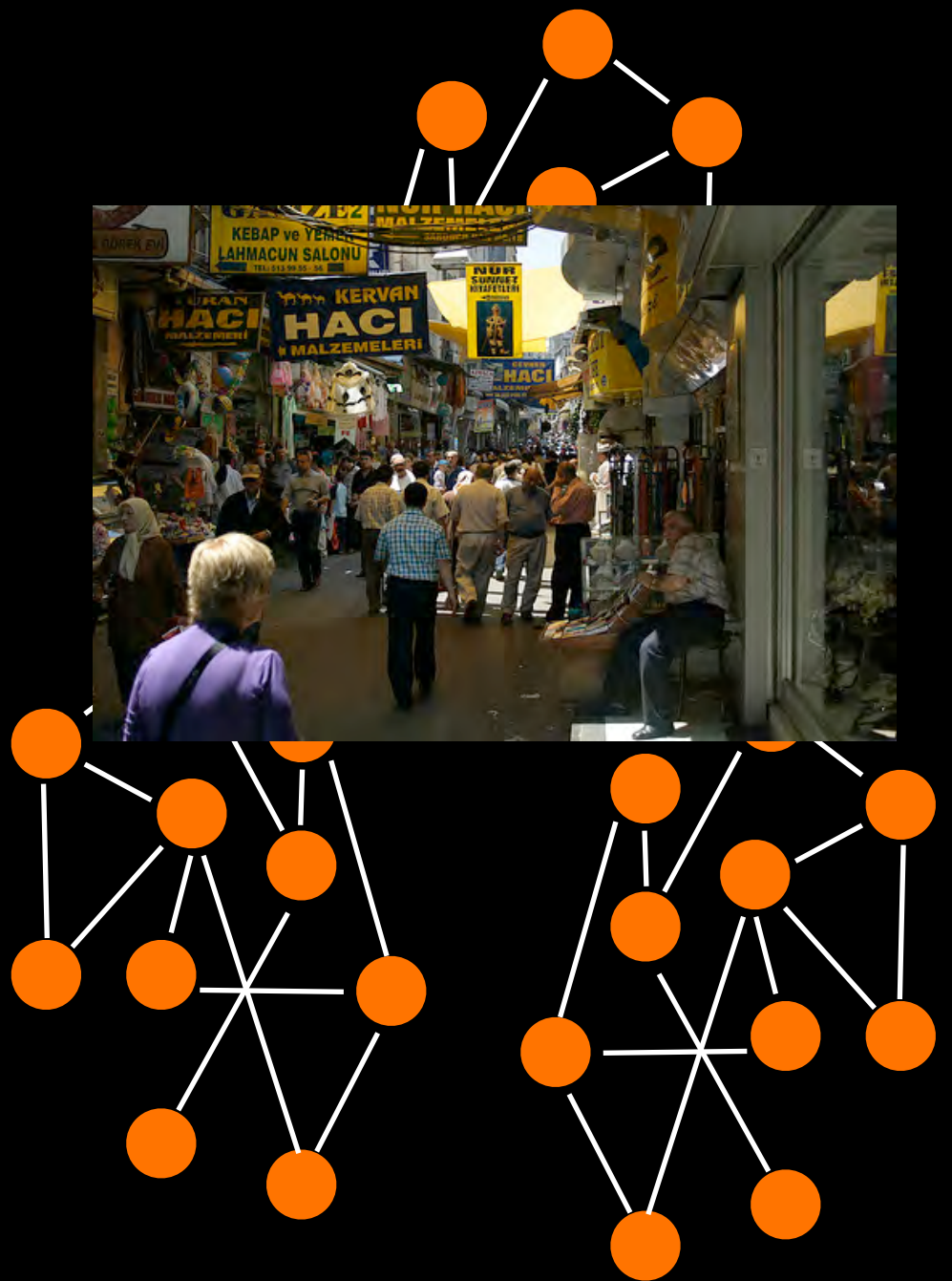
In this way, wikipedia is just like the web in general ...

it's a technology that has tapped into a latent need people have to be part of conversations.

Instruction



Conversation



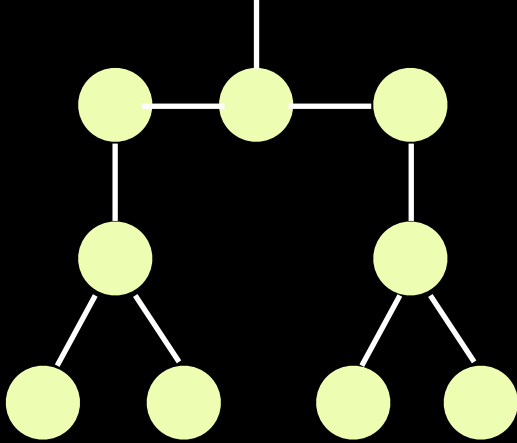
This isn't a terribly new distinction ...

as Eric Raymond said in relation to open software, there's a similar difference between a cathedral and a bazaar.

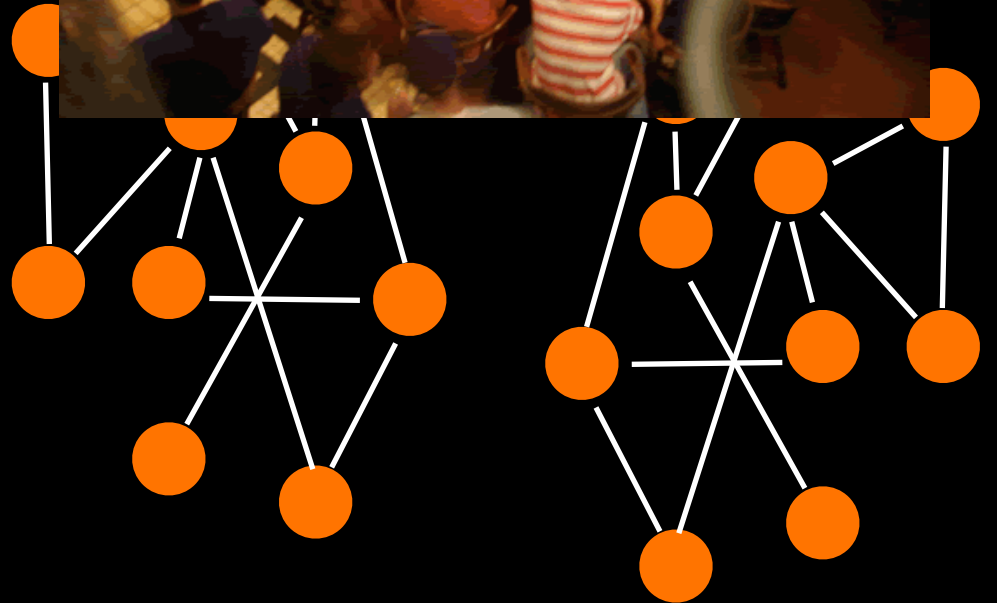
cathedral: <http://www.tuamparish.com/>

bazaar: (CC / some rights reserved) <http://flickr.com/photos/adamfranco/228701287/>

Instruction



Conversation

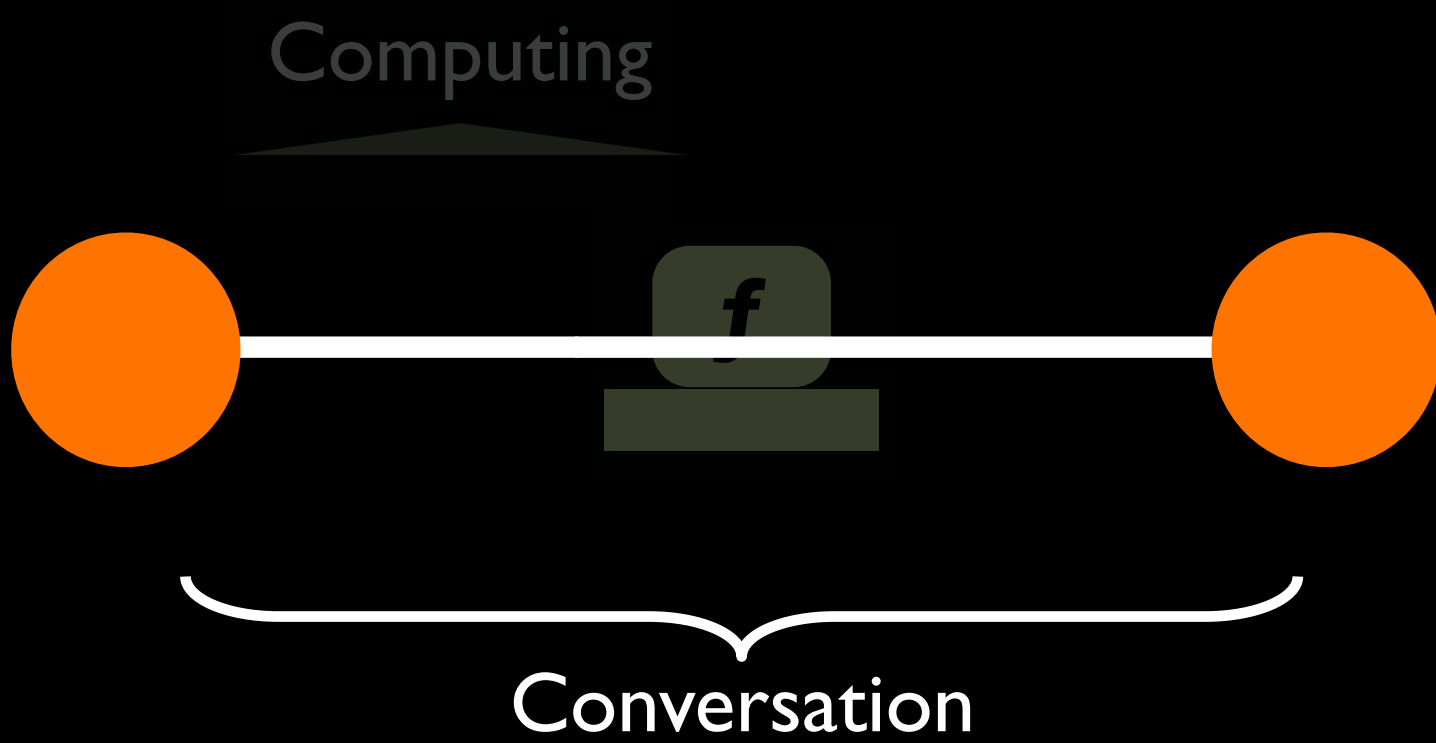


It's also key difference between a lecture hall and a pub. Both of them generate plenty of human knowledge, learning, understanding. But they do it in different ways, with different assumptions.

They're actually quite complementary ... in fact, at this conference we've seen this in practice -- people go to lectures like this one and then have conversations about it in the halls and over meals and drinks. They work to feed one another.

Lecture Hall: <http://www2.uakron.edu/cpspe/dps/facilities.htm>

Pub: <http://www.mcgofts.com/>



Every time a given population starts using computers, they start out as being about the computer itself.

>>

But as soon as those computers are able to connect to other computers, it's like the computer fades from our immediate concern, and the computer becomes a conduit for communication.



“Conversation is king.
Content is just something to talk
about.”

Cory Doctorow

Cory Doctorow said this on his blog last year, and I still love quoting it.

Conversation is king, Content is just something to talk about ...

Information is there because of our need for conversation. Not the other way around.

Conversation is the
engine of
knowledge.



Conversation is the engine of knowledge. It's the generative activity of civilization.

Of course, I don't mean only literally talk, I mean the bigger sense of conversation -- human interchange, interaction and commerce. Markets are conversations too.

(image: andrew hinton)

Distributed Conversations



Some of the conversations people have had through history have been distributed.

By ‘distributed’ I mean they weren’t in the same time and place and happening verbally, they were done through writing, publication, and distribution over space and time, using technologies like letters, newspapers and books.

>> And to manage all these conversations, we came up with libraries. Now, we tend to think of libraries as all about storage and retrieval, but they’re not. They’re really conversation devices ... but unlike the web, they have to deal with physical space and materials. So it all moves very slowly ...

>>kind of like a glacier -- some glaciers move slowly enough that generations of human beings can go by thinking of that glacier as a permanent geographical fixture. You can build edifices and organizations on it and take it for granted, that it’ll just always be that way.

image: http://www.library.pitt.edu/libraries/frick/fine_arts.html

Phase Transition



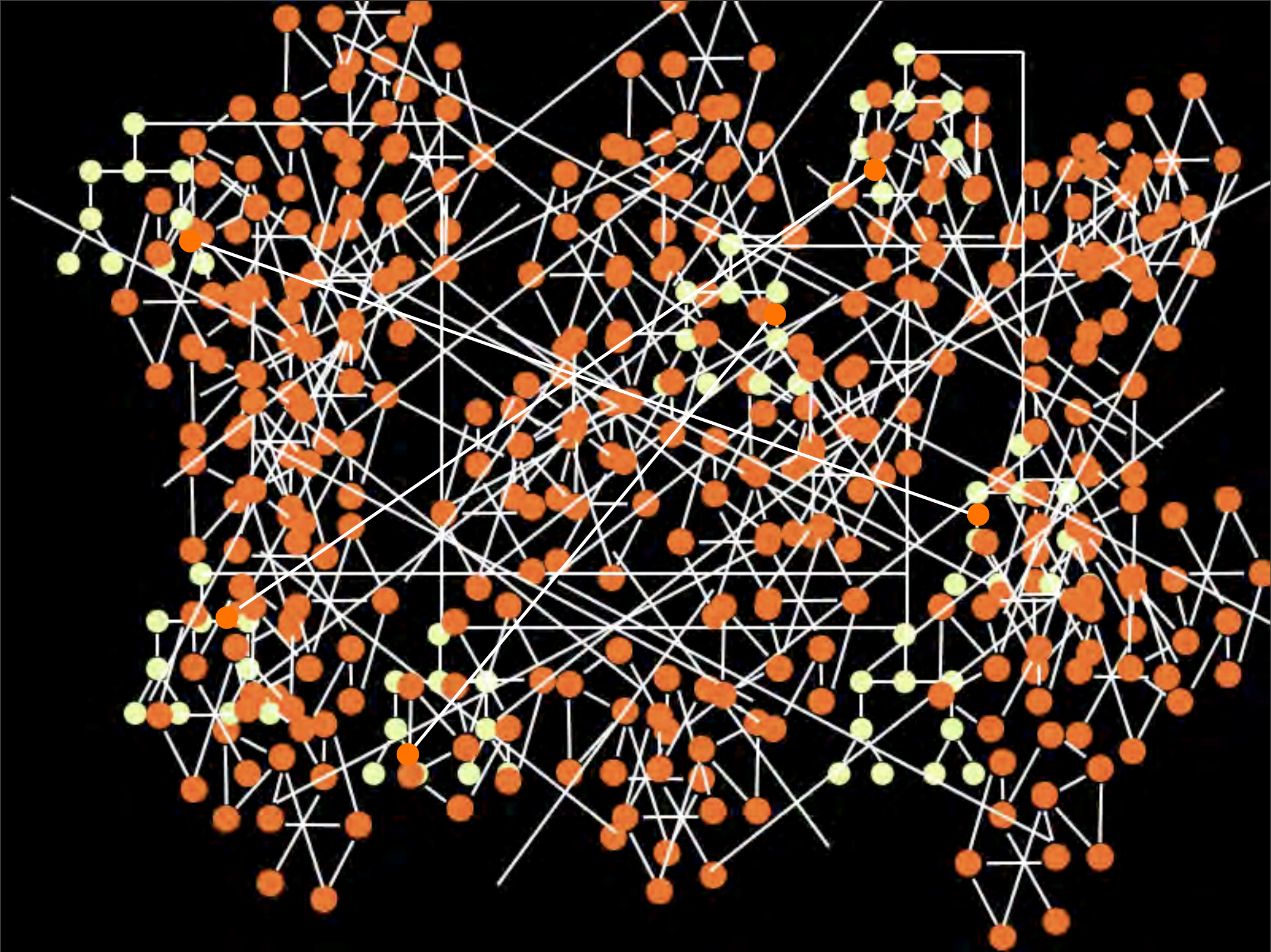
What the internet has done is speed up our conversations, and make them less dependent on geography, distribution and physical materials.

Like adding heat to water, the web allowed the molecules of our conversations to move much more rapidly.

For some things, a large enough difference in scale results in a difference in KIND, just like a phase transition for water.

It's not just a matter of more of the same ... the web turned the internet into a sort of culture-acceleration device.

(images: corbis)



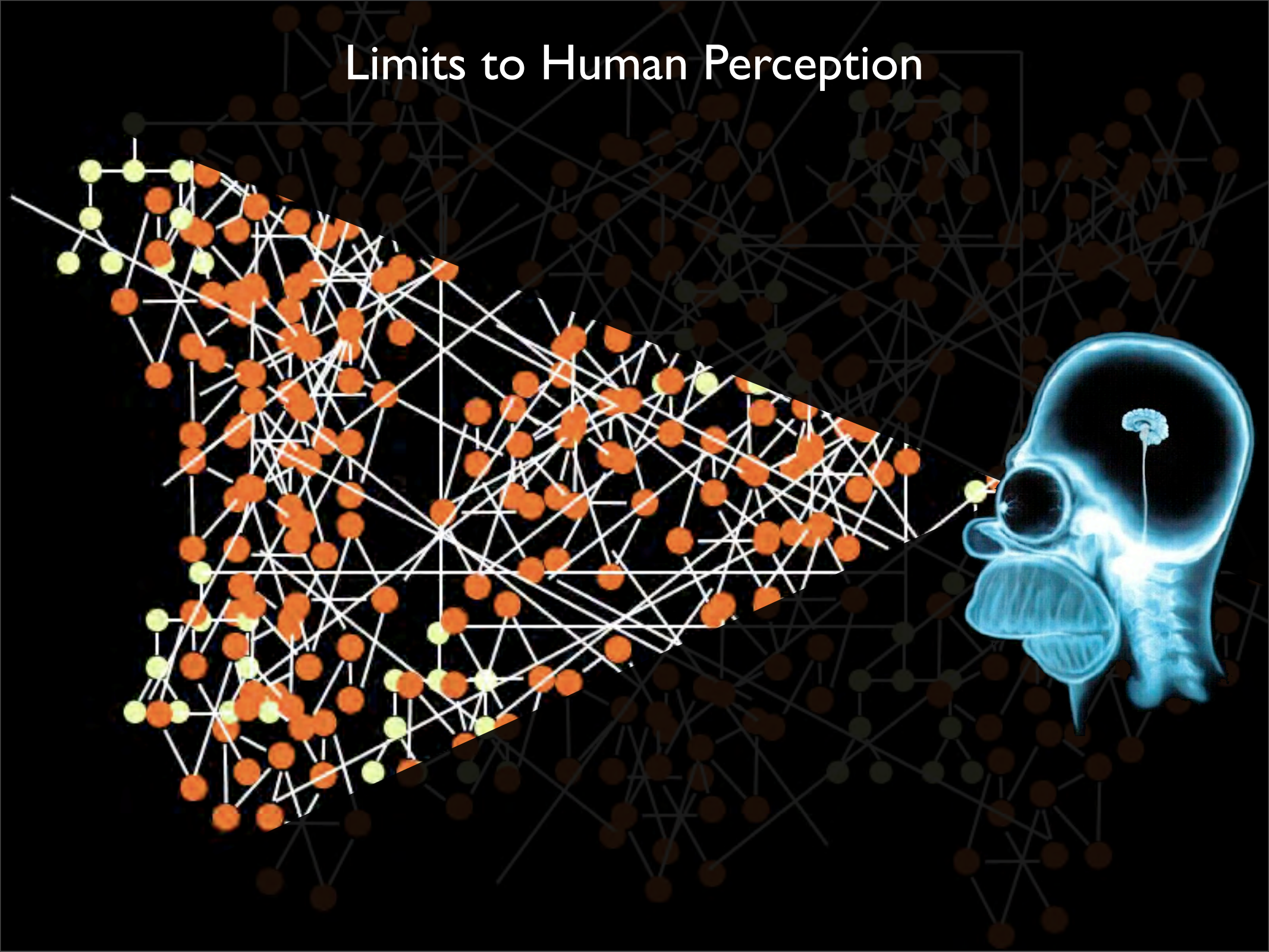
Think about it ...
When we were given the ability to create links anywhere we wanted, and the old structures faded into the background.

This gave us a lot of freedom, and a lot of excellent conversations!

Millions and millions of new links and new ways of organizing things!

But there's a problem.

Limits to Human Perception



24

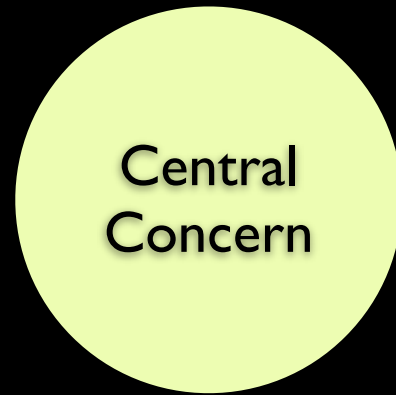
There are cognitive limits to what we can perceive and understand.

All this information, all these conversations, are wonderful -- but it's like trying to drink from a firehose.

It needs to be managed, shaped, so people can find the conversations they actually need!

(I have no idea where this homer image comes from originally, or i'd credit it ... but it's all over the place)

A new central concern:



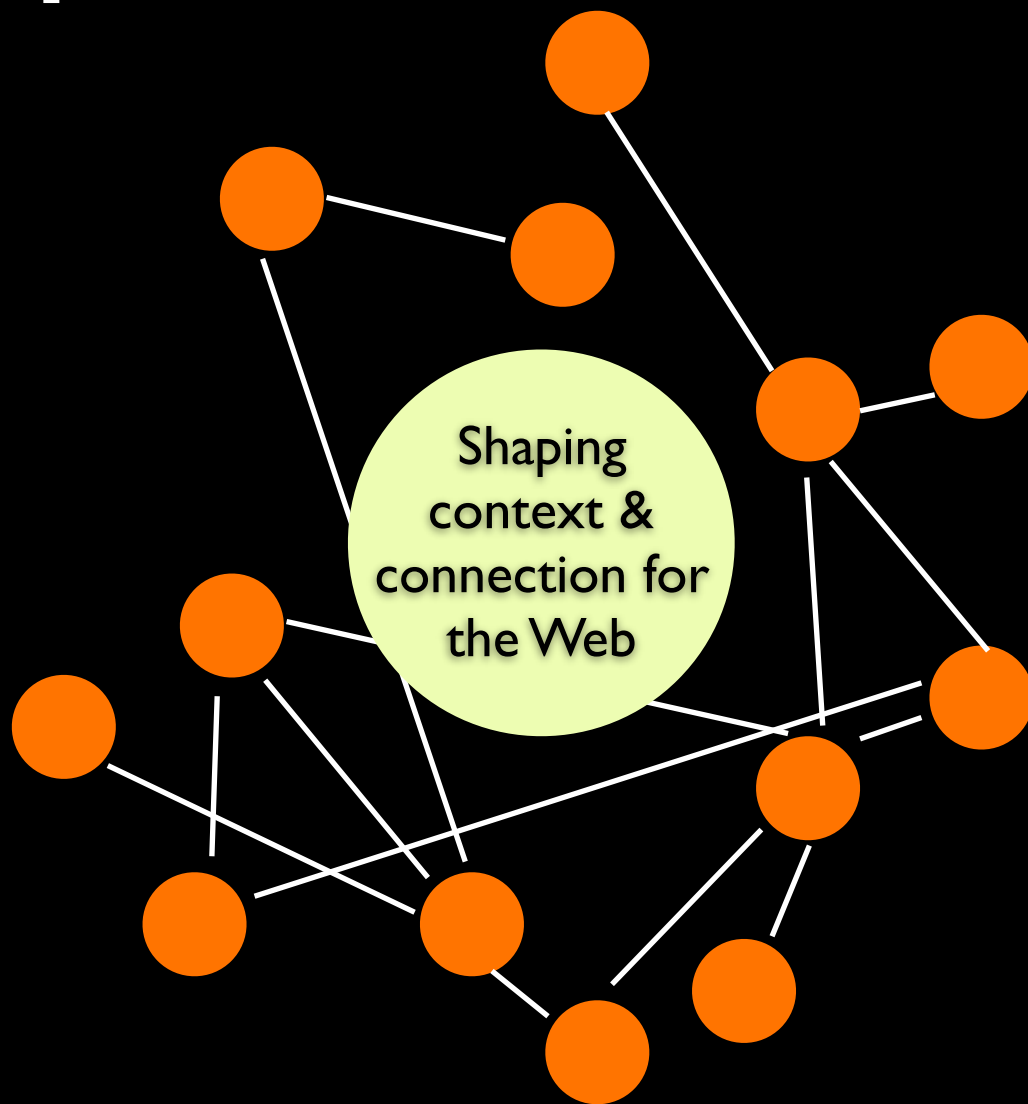
How do we organize context and connection on the Web?

This challenge brought about a new central concern for design.

>>

Now that we have so many choices, and things are so open and accelerated, How do we organize context and connection on the Web, so that we can sip from the firehose without losing our heads?

People started talking ...



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People started coalescing around this new, central concern ... this new design challenge.

They started asking the question: what about what happens **between** pages, not just what happens **on** them?

"Argus' mission is to change the perception that information architecture pertains exclusively to the relationship of chunks of information **within** pages, as opposed to **between** pages." - L Rosenfeld
<http://a.jaundicedeye.com/stuck/archive/050897/article.html>

1995

1998

What is Web site architecture? Well, Web users face a number of problems. In fact, at every level of a Web site's architecture, there are plenty of things to consider at much higher structural levels.

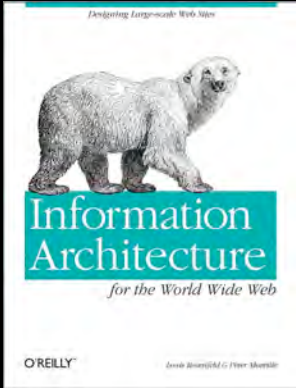
So we're ready for our first and second definitions. Web site architecture covers the low-level (the textual and graphical elements within HTML documents) to medium-level (the overall vision -- that holds a Web site together). A "good" architecture for a Web site should be OK, so how do we measure success in this context?

A Kernel of Design Philosophy

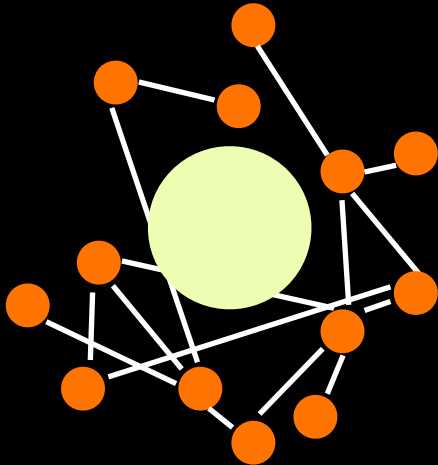
You've got me there; I don't have the answers. I'm not a designer, but I can provide some suggestions. At my company, A

Understand the audience. It's really amazing how eventually finding that she's billed you for a gaudy movie text or layout make no sense at all? Speak the language

Balance aesthetics and function. We all fell in love with includes rich text styles, graphics, and other flashy elements a degree.



1999 / 2000



SIGIA-L Mail Archives - April 2000

By Thread

Post a New Message

141 messages sorted by: [author] [date] [subject] [attachment]

Starting: Tue Apr 18 2000 - 11:59:15 EDT

Ending: Mon May 01 2000 - 00:22:36 EDT

- **SIGIA-L: Information architecture/architect?...** *Natasha Kontsedaylo (Mon May 01 2000 - 00:22:36 EDT)*
- **SIGIA-L: IA Tools** *Henric Beiers (Sun Apr 30 2000 - 20:37:24 EDT)*
- **SIGIA-L: Human Factors and the Web Conference and Tutorials** *Cantor, Judy, ALSVC (Sun Apr 30 2000 - 14:44:50 EDT)*
- **SIGIA-L: Site Audit - Process, Resources** *Tom Jones (Sat Apr 29 2000 - 15:58:59 EDT)*
- **SIGIA-L: new to list** *Laura Lipscomb (Sat Apr 29 2000 - 10:39:46 EDT)*
- **SIGIA-L: Measuring the effectiveness of an Information Architecture** *Karyn Young (Sat Apr 29 2000 - 10:21:38 EDT)*
 - **RE: SIGIA-L: Measuring the effectiveness of an Information Architecture** *Cantor, Judy, ALSVC (Sun Apr 30 2000 - 14:42:00 EDT)*
 - **Re: SIGIA-L: Measuring the effectiveness of an InformationArchitecture** *Kelly Green (Sat Apr 29 2000 - 12:03:25 EDT)*
- **SIGIA-L: Conference of interest** *James Weinheimer (Fri Apr 28 2000 - 16:32:45 EDT)*
- **SIGIA-L: notations ?** *James Weinheimer (Fri Apr 28 2000 - 11:47:12 EDT)*
 - **RE: SIGIA-L: notations ?** *Phill at Systems Design (Fri Apr 28 2000 - 14:02:44 EDT)*

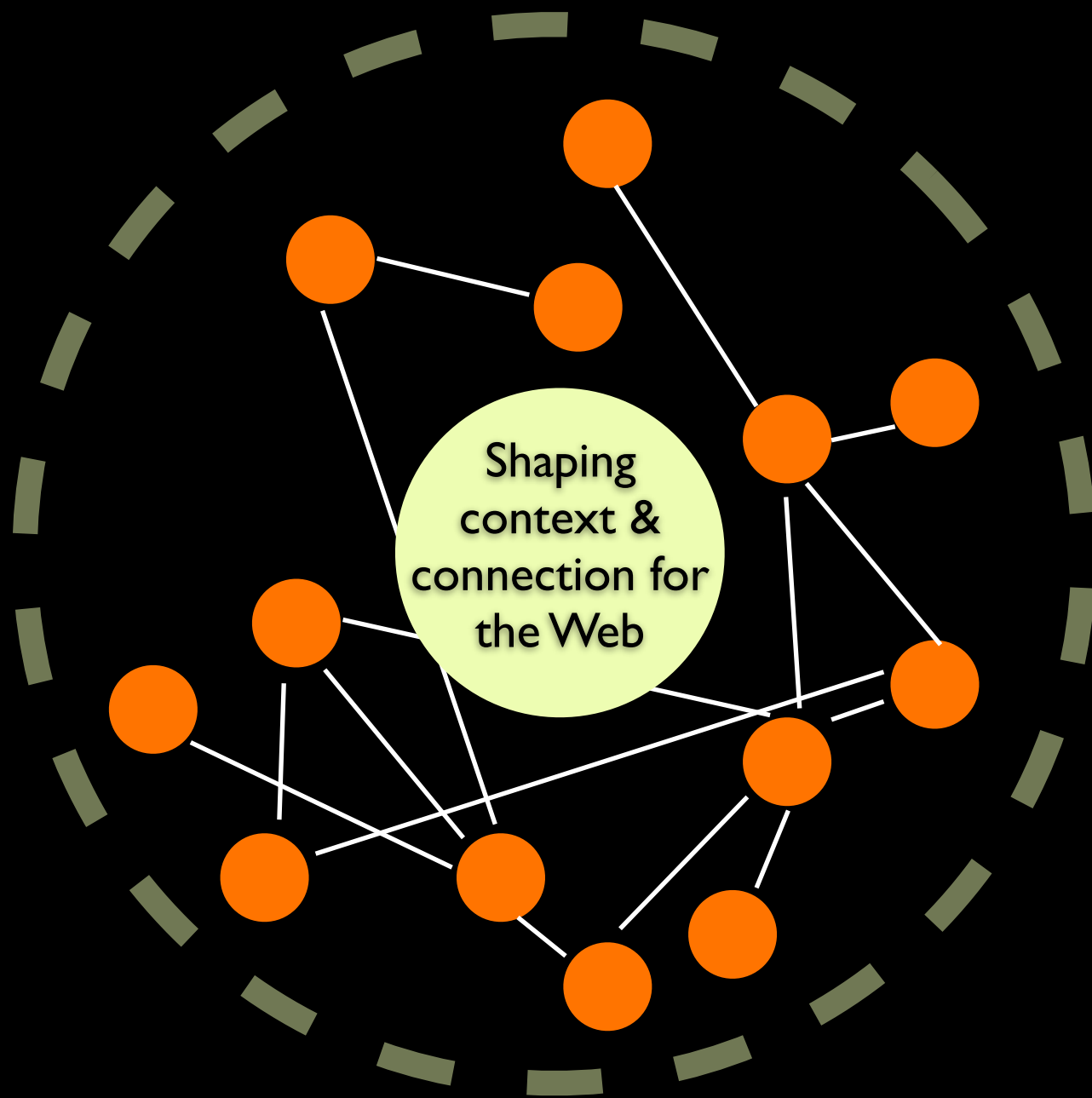
And because we had the Web, people started finding each other fairly quickly, in comparison at least to other practices in the past. Within just a few years, people from all over the world were discussing this design problem.

<http://www.oreilly.com/catalog/infotecture/cover.html>

<http://www.info-arch.org/lists/sigia-l/0004/>

web architect article: <http://web.archive.org/web/19961127163741/http://webreview.com/95/08/17/design/arch/aug17/index.html>

Community of Practice



Well, it turns out that this group behavior of emerging around a shared central concern has a name ... it's called a Community of Practice.

2

Practice

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12 MINUTE MARK

Let’s talk about what we mean by the term “practice”

[this section 6 minutes (18 total by end)]

“Domain”

“Communities of Practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.”



Etienne Wenger

“Practice”

“Community”

Etienne Wenger, who coined the phrase, defines it like this.

Communities of practice are groups who share a concern or passion or, well, a practice ... and they learn how to do it better by interacting and learning from one another, and doing so on a regular basis.

Lately I’ve been using the phrase “Central Concern” instead of “Domain” because “Domain” seems to come with some territorial baggage. But ‘domain’ in this instance does not imply exclusive ownership; it implies focus.

LONG VERSION

>>

DOMAIN: A community of practice is not merely a club of friends or a network of connections between people. It has an identity defined by a shared domain of interest.

Membership therefore implies a commitment to the domain, and therefore a shared competence that distinguishes members from other people. (Wenger)

>>

PRACTICE: Members are practitioners, developing a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems. This takes time and sustained interaction.

A good conversation with a stranger on an airplane may give you all sorts of interesting insights, but it does not in itself make for a community of practice. (Wenger)

>>

COMMUNITY: In pursuing joint interests in their domain, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other. A website in itself is not a community of practice. Having the same job or the same title does not make for a community of practice unless members interact and learn together. (Wenger)

(photo from etienne’s site)

There Are Many Communities of Practice



Emergent Groups for Learning, Making & Improving

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The name “community of practice” is relatively new, but the pattern of social behavior is as old as civilization itself.

There are and have been multitudes of communities of practice, in all lines of work.

They are essentially emergent social groups for learning, making and improving the domain -- the central concern of the practice.

“Practice is a shared history of learning.”

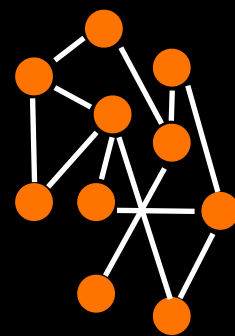
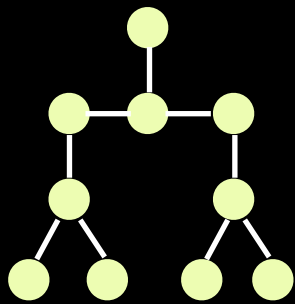


Etienne Wenger

Practice is conversational.

I especially like Wenger’s statement that the “practice is a shared history of learning” ... it’s a novel, enlightening way to think of practice.

>>That is, practice is inextricably part of the conversation.



Work “Team”
Involuntary
Product Delivery
Defined by Mgmt

Community of Practice
Voluntary
Continual Evolution
Emerges

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One way to understand them is to compare them to Teams.

Teams are defined top-down by management for the purpose of production. You’re assigned to them. And they don’t exist without being defined on an org chart.

Communities of Practice emerge from conversations and shared learning. You choose to be a part of it ... in fact, it’s mostly unconscious ... you tend to just find yourself involved in it. It’s not about producing widgets -- it’s about learning and sharing.

Often communities of practice thrive in the open nooks and crannies of traditional team structures, and effective management gives room for this, and lets it happen. If anyone’s interested in more resources on managing around communities of practice, let me know afterwards.

Longer version (not read in presentation)

One way to understand Communities of Practice is to compare them to something we’re all familiar with, a Work or Project Team. So let’s look at just a few characteristics of both.

>>

Teams are Involuntary -- you’re assigned to them -- but Communities of Practice are very organic, and people get involved in them because of their interest, not to fulfill an obligation.

>>

A team’s purpose is to deliver products, on delivery dates. But a Community of Practice’s purpose is its own evolution -- Learning, Making & Improving -- the continual improvement of practice and knowledge among its members. There’s no delivery date -- even though the community often may set goals and work together on meeting them, it’s in the service of the ongoing evolution.

>>

And not only are a team’s members and goals assigned, it’s entirely defined by the organization’s management structure. **Without an org chart, it wouldn’t exist.**

A Community of Practice is defined by the aggregate of its members, and whatever domain they happen to share in common.

>>

This means that management really doesn’t have much of an idea what to *do* with a CoP. It doesn’t fit the MBA concept of a managed organization. Even though, in almost any workplace, they exist in some form or another, and in many organizations they’re essential to the org’s success.

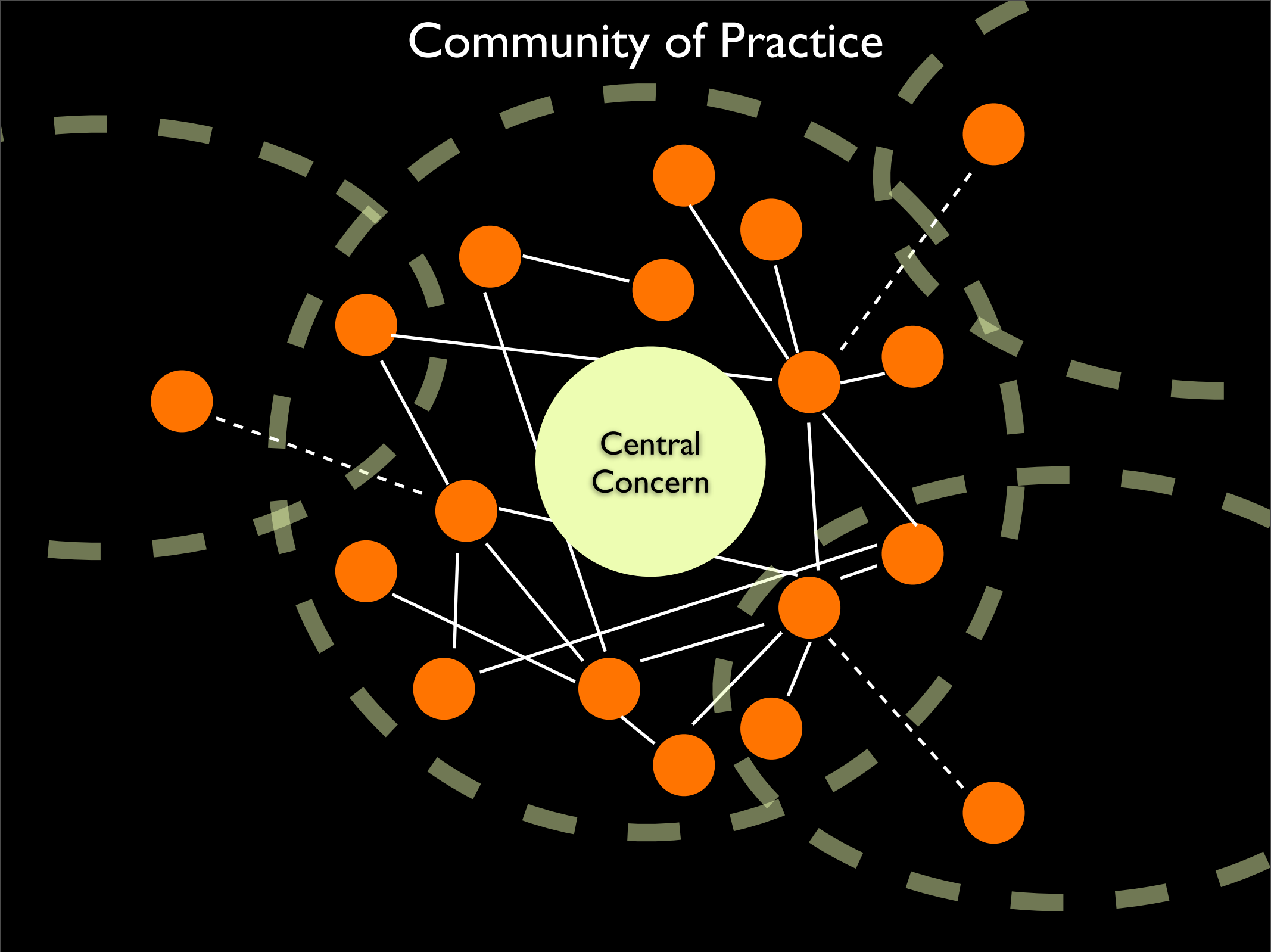
[CLICK]

Does this mean Teams and CoPs are mutually exclusive? No... in fact, sometimes the best teams have taken it upon themselves to become communities of practice >>

They can work in a complementary fashion -- but often they end up blurring boundaries between other teams and branches in the organization.

By the way this is something management often doesn’t understand: that when you put something organic down it tends to grow roots. If you’ve ever been in a team that you felt like you really grew with, and felt like a community, then were arbitrarily transferred to some other team ... you feel ripped out by the roots. That’s why.

Community of Practice



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A community of practice is dynamic ... its members and their involvement shift over time.

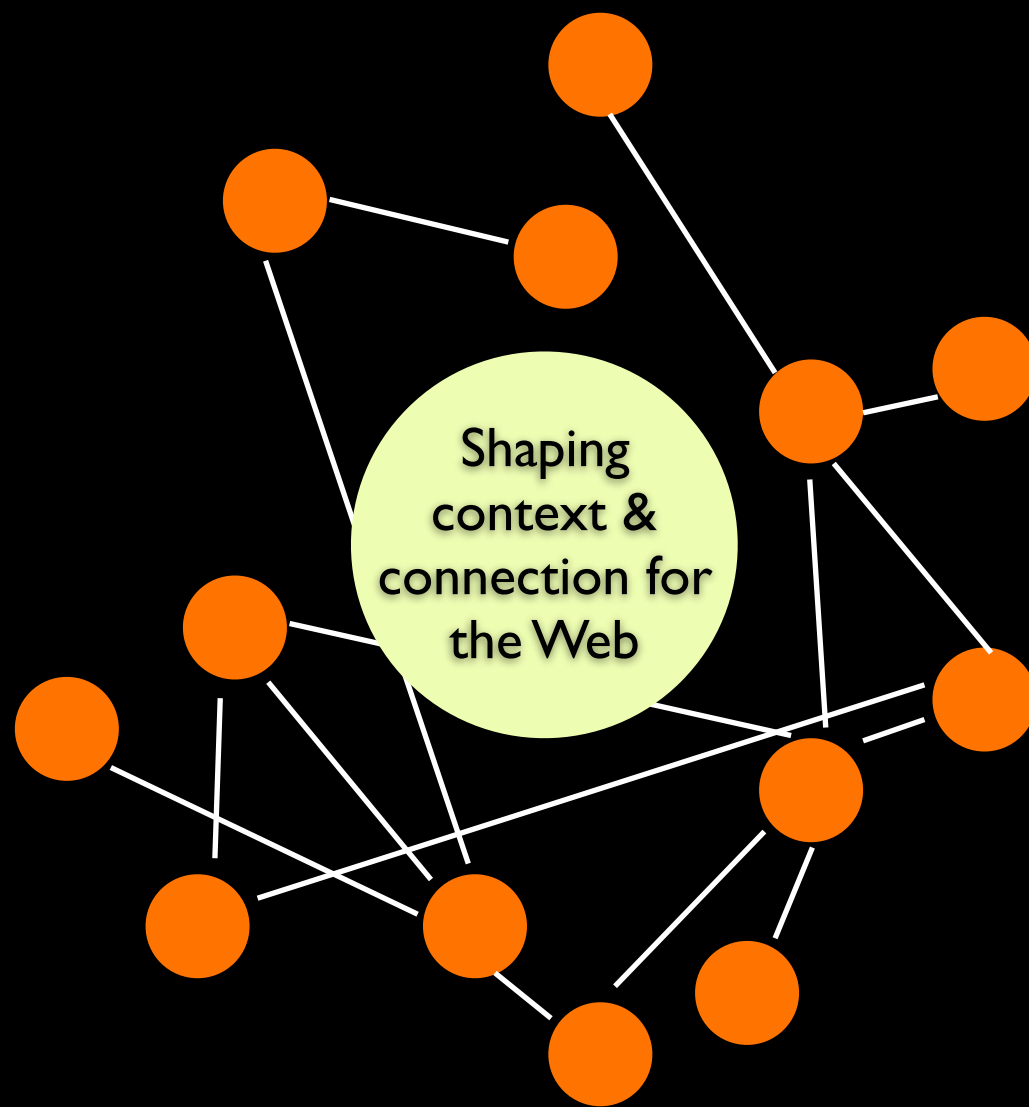
>>
Members may come in and out, even its domain can sometimes migrate to a new focus.

>>
Sometimes it attracts outsiders who are loosely involved because they have an interest in the domain.

>>
These people are often part of other practices, and bring skills along with them.

And this is all perfectly OK... in fact, it's essential. This whole ecosystem of members and ideas is part of what helps these patterns thrive.

The Web brought about a new “Central Concern” ...

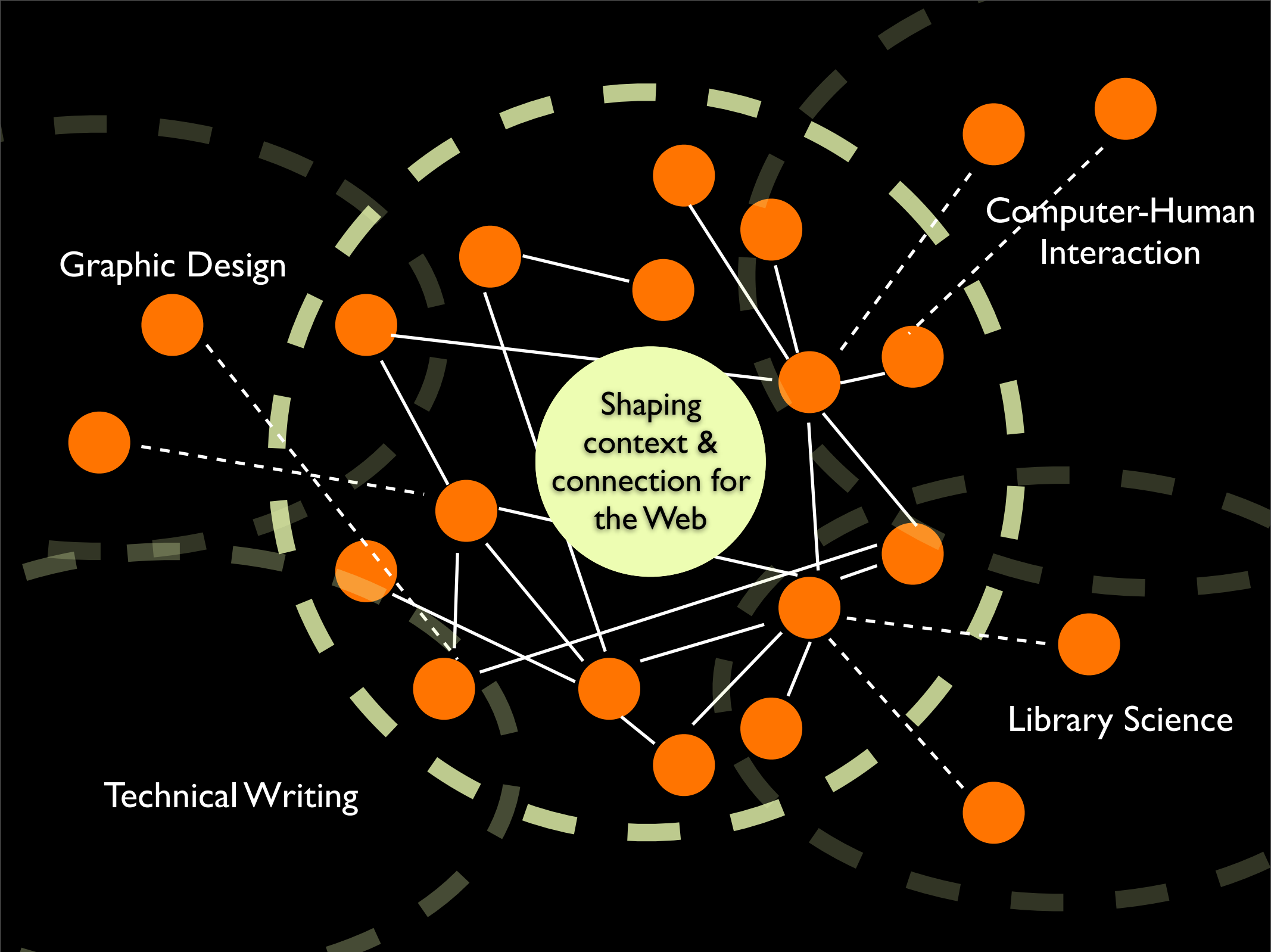


35

When this new central concern arose, people needed help figuring it out.

They looked to the current conversations going on in existing communities, but this concern wasn't being addressed, at least not with the focus these folks were seeking.

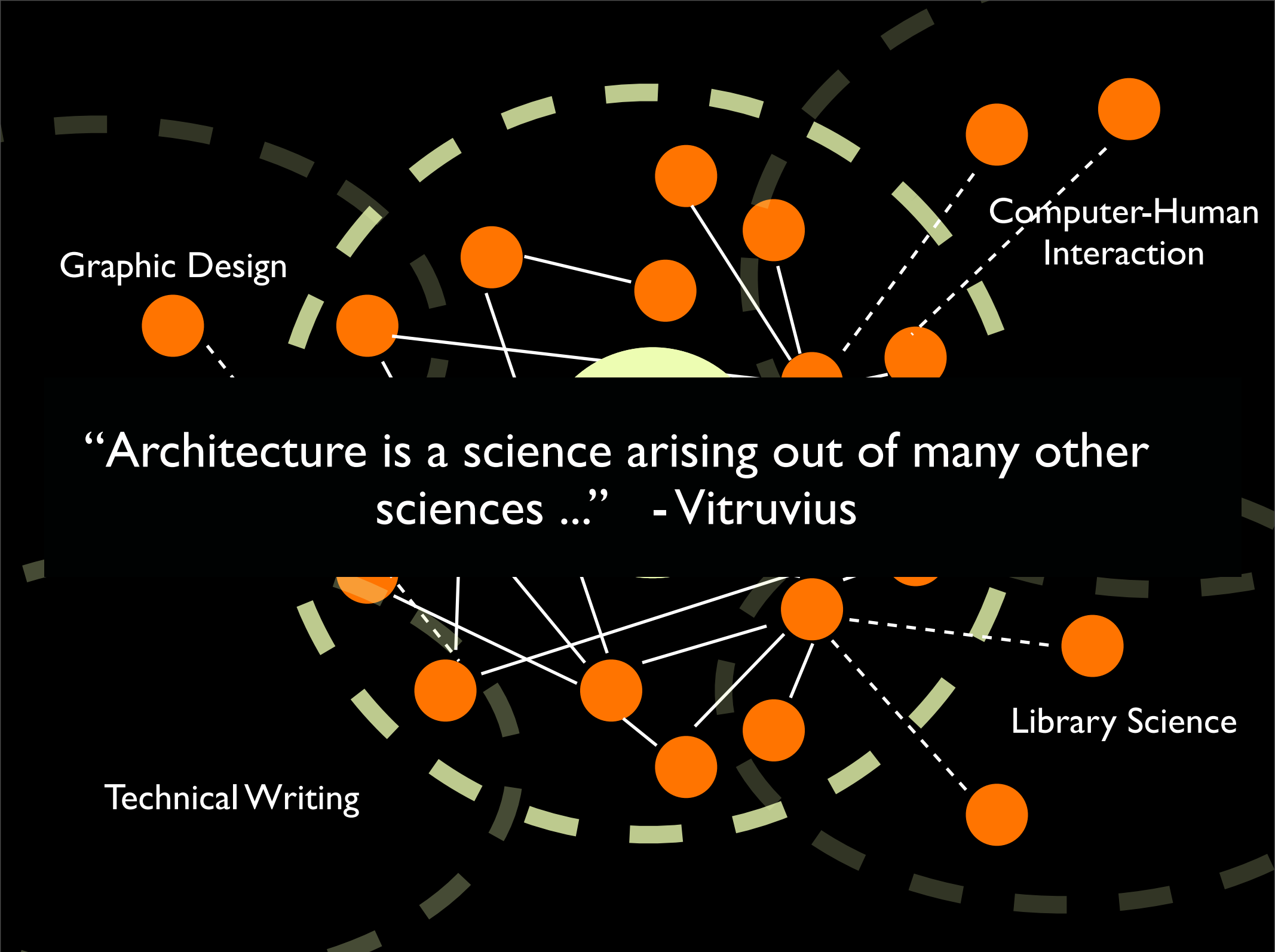
So they found each other online, and started this new conversation.



Most of us came from other practices, only a few of which are represented here ... and we all brought with us the methods, tools and points of view inherited from our practices of origin.

And all practices arose, at least in part, from those that were already around.

Because there's nothing new under the sun ... every practice had to borrow from what existed already in order to make something new.



Vitruvius, explaining the basics of Architecture two thousand years ago, says about that age-old practice that it “is a science arising out of many other sciences...”

If it’s true for something as old and established as Architecture, it’s surely ok for us.

But, still, all this connecting, overlapping and crossing of boundaries can cause some anxiety and consternation ... it makes us nervous to think things aren’t defined better than this.

It makes us a little paranoid that ...

I drink your milkshake!?



38

Somebody's trying to drink our milkshake.

Now, if you haven't seen *There Will Be Blood*, this reference didn't make any sense, but let me explain.

Daniel Plainview, pictured here, explains to another character in the movie that he ran a pipe from his property to the other's, underground, and took his oil.

No Silos!!!



39

He uses a metaphor of milkshakes.

>>

And says that he snuck a straw from his milkshake into the other's ...

Now, there's a tendency to think that one practice and another practice are separate properties, and that we have exclusive ownership to them.

It makes us suspicious of connections, afraid that you're going to take a straw and sneak it into our Milkshake and drink it.

>>

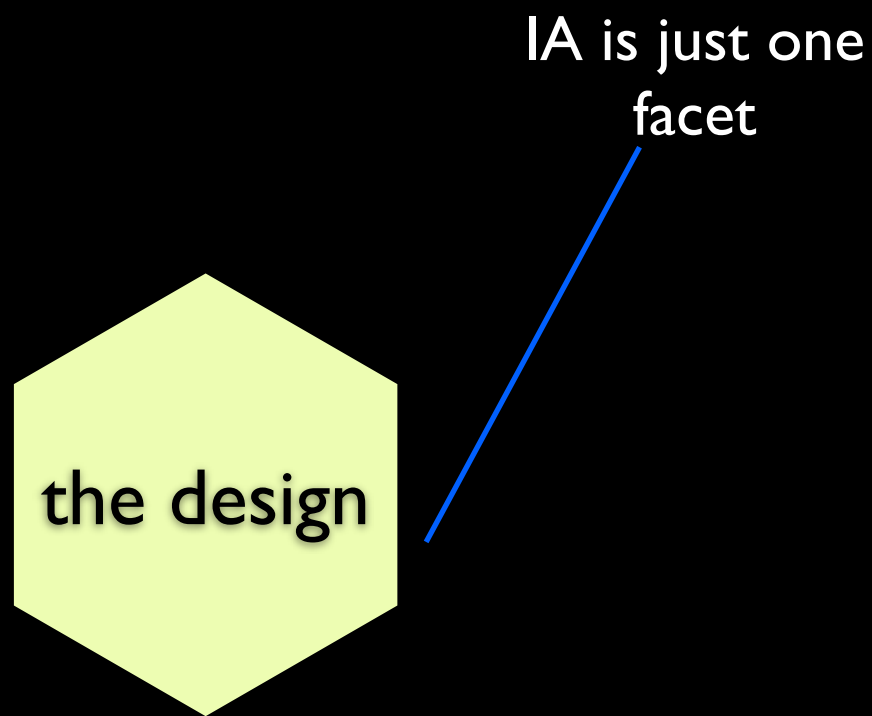
But this assumes that we work in silos, and that these practices could even exist completely separate.

>>

In user experience design, we really can't afford to have silos.

image: <http://www.lakefronthartwell.com/bm~pix/milkshake~s600x600.jpg>

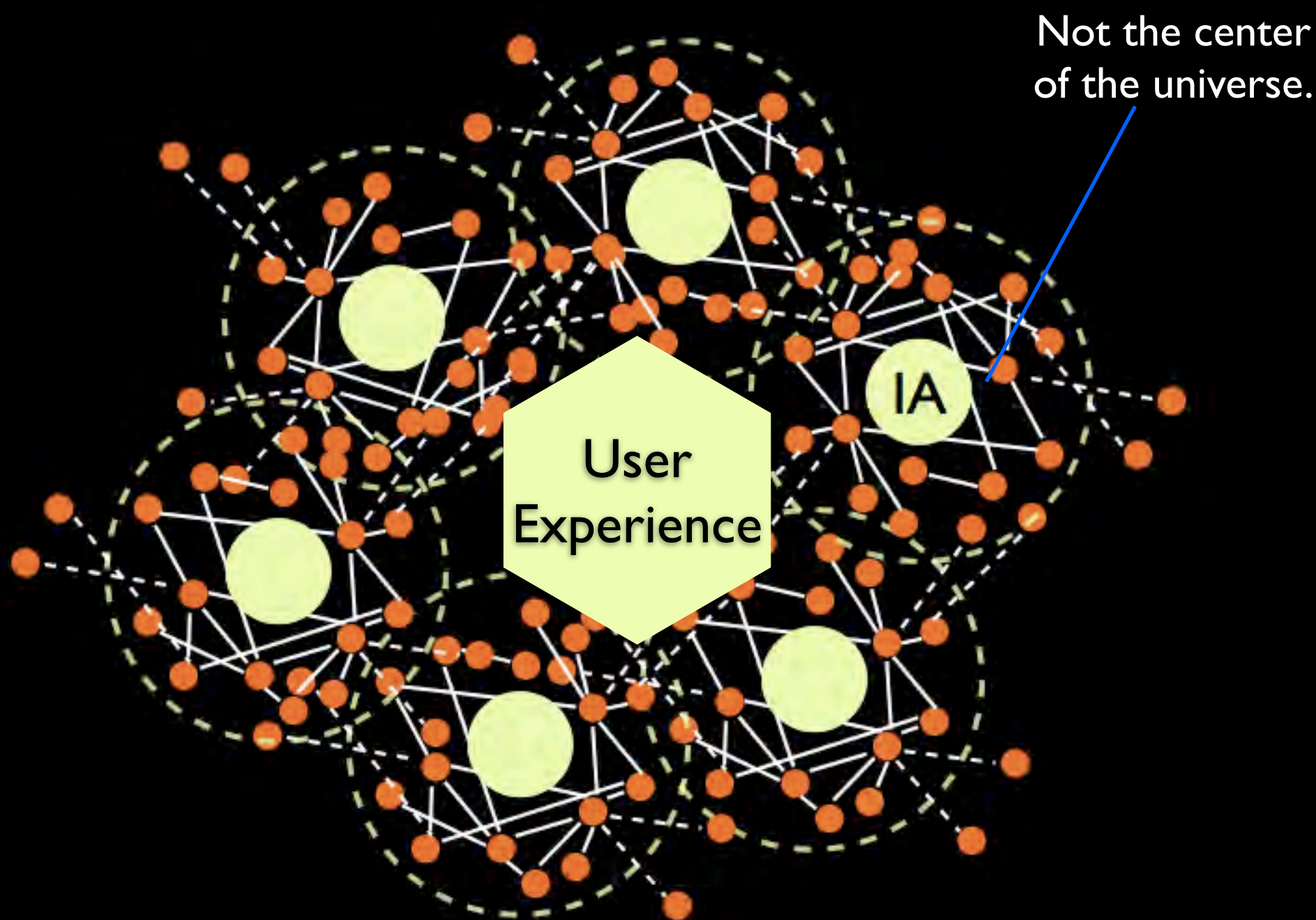
A design for UX has many facets ...



... a whole design involves multiple “central concerns.”

A design for user experience has many facets, each with its own “central concern.”

>> and IA is just one facet.



User Experience as Meta-Practice

41

There's a whole family of practices that, working together, form what is becoming something we're calling "User Experience" -- and it depends on connections! We need straws!

>>

And just because the focus of my talk is on IA, it doesn't mean that IA is the center of the universe ... it's part of this family of practices that are all needed for this kind of design.

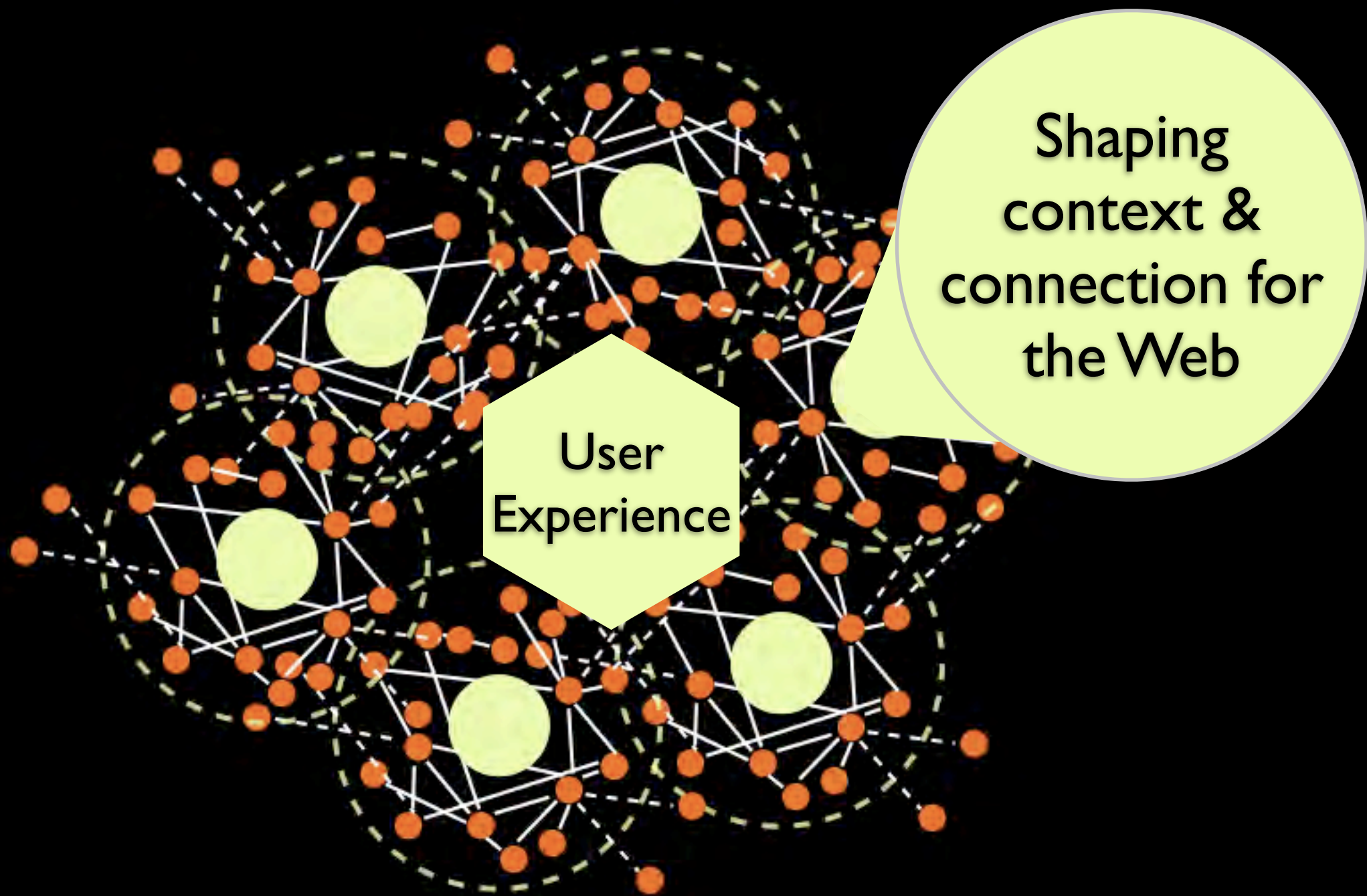
These practices aren't milkshakes ...



... UX is more like Chunky Monkey.

What we're in isn't a milkshake ... If anything, it's a lot more like Chunky Monkey.

It's kind of impossible to separate it all out and still have the same result.



The question is, how can we come to better understand what our central concern is, so the practice can function as an even better member of this family of practices?

Let's take some time to unpack this 'central concern' and understand it better.

What is the nature of the problems this focus is trying to solve?

3

Space

20 MINUTE MARK!

To get there, we need to talk about “Space”

(this section 8 min)

Representation



Map

Instantiation



Territory

In order to get our heads around space, connection & context, we need to understand an important distinction between Representation and Instantiation.

>>On the left there's a map of the Tokyo Subway system.

>> And on the right, there's a photo of the actual subway ... the thing you walk around in and experience as the space of the subway.

>>The map is a representation of an external reality; the subway territory is the actual instantiation of that territory.

tokyo subway map: <http://www.tokyoessentials.com/images/tokyo-subway-map.jpg>

subway station: <http://flickr.com/photos/route79/2497125/>

Alfred Korzybski



“The map is not the territory.”

Alfred Korzybski (KOR-ZIB-SKEE) famously made this distinction. He emphasized that the map cannot be the territory.

"The map is not the territory." http://en.wikipedia.org/wiki/Alfred_Korzybski

image: <http://www.britannica.com/eb/art/print?id=12438&articleTypeld=0>

Maps / Territories



47

You can only go so far toward making a map that looks, feels and has the detail of the territory before you come so close that it's no longer useful as a map.

At the Natural History Museum in New York, there's a wall of wall of animals, showing taxonomies of the natural world with preserved specimens. It's quite beautiful.

>> In Philadelphia, there's a small-scale 3D map for the blind, to help them get a sense of Independence National Park.

These are interesting curiosities that push maps toward the threshold of territory, but only in service of representation.

images by Andrew Hinton: [flickr.com/inkblurt](https://www.flickr.com/photos/inkblurt/)

Wurman's Tokyo Subway Map



“Someone who enables data to be transformed into understandable information.”

[4/15 edited to add: turns out this isn't the tokyo subway but the tokyo ground transport system; oops! but the point still holds ...]

Richard Saul Wurman loves maps.

He also coined the term “Information Architect” back in the 70s, and wrote a book on it some years later.

>>

Wurman himself took a crack at the Tokyo subway map with this example ... attempting to simplify and bring a sense of elegance to a visual explanation that people can walk around with in their heads.

>>

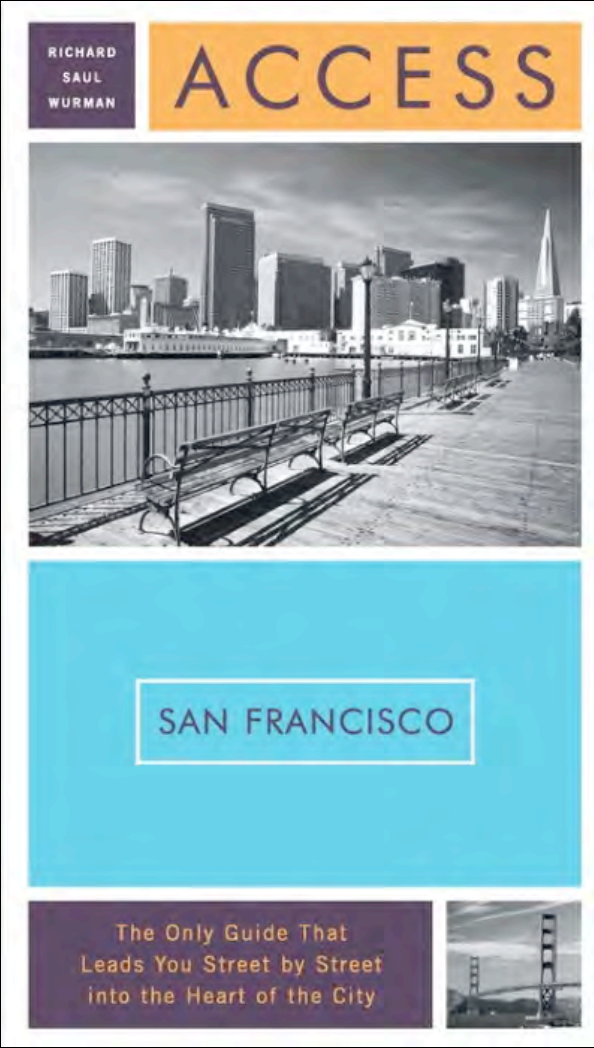
Here's Wurman's description of an Information Architect: “Someone who enables data to be transformed into understandable information.”

When he coined “Information Architect,” he was using the word “architecture” metaphorically in its more expansive meaning of organizing complex systems into things people can use. His aim was to elevate the practice of information design.

wurman map: <http://www.ischool.utexas.edu/~wyllys/ITIPMaterials/InfoArchitecture.html>

subway station: <http://flickr.com/photos/route79/2497125/>

wurman image: aiga



Wurman also founded a travel guide called Access.

>> It used innovative information design practices to make the complexity of cities more understandable to visitors.

Again, though, there’s a clear difference between the representation of the book, and the actuality of the city.

But imagine this:

>>What if when you opened this city guide, and pointed to a particular street ...

>> you walked right into it?

What if the city itself was made of the information that described it, and the information was made of the city?

That’s what happened on the Web.

book images: [amazon.com / HarperCollins Publishers](https://www.amazon.com/HarperCollins-Publishers/)

sf image: <http://sanfrancisco.about.com/od/sanfranciscophoto1/ig/sfsoma/somasunterrace.htm>

Representation



Instantiation



Here's an example ...

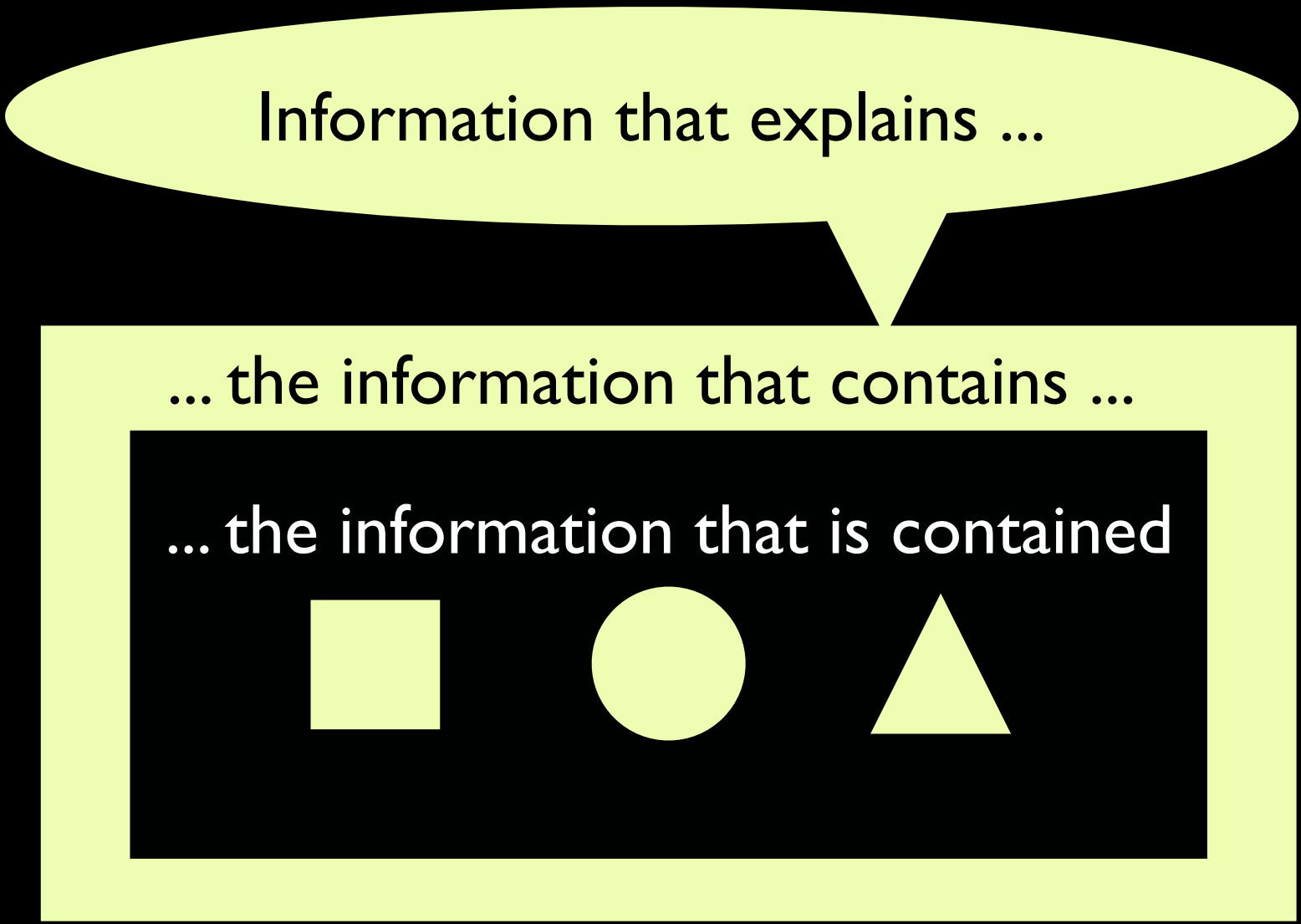
At Google, there's a site map ...

A site map represents the structure of the space you're in ... like a map at a shopping Mall.

In a Mall, it would just tell you where to walk in the separate, external space.

>>

Except that, *this* map is the place itself ... when you use it, you move through the space it instantiates.



Just to make sure we're all getting this

>> ... on the web, you're creating a place out of information

>>

that contains information for people's use ...

>>

and explaining that place using information as well.

On the Web, information is the only raw material you have to work with ... for all these functions.

It's a real brain-twister ... so no wonder we've had trouble explaining what we do.

We experience semantic context & connection as space.



David Weinberger

“... the web has created a weird amalgam of documents and buildings.”



Andrew Dillon

“Information space of any size has both spatial and semantic characteristics ...”

52

Not long after the advent of the Web, people started trying to figure out just exactly how to talk about this. In *Small Pieces Loosely Joined*, David Weinberger explains how the Web changes the way we think of documents and interact with them, how we go “to” them and do things “in” them even though they’re documents.

>> Around the same time, Andrew Dillon was puzzling out the mysteries of how people experience information environments in a spatial and semantic way.

David Weinberger:

“And this is perhaps the most significant change the Web brings to the world of documents: the Web has created a weird amalgam of documents and buildings. With normal paper documents, we read them, file them, throw them out, or send them to someone else. We do not go to them. We don't visit them. Web documents are different. They're places on the Web. We go to them as we might go to the Washington Monument or to the old Endicott Building. They're there, we're here, and if we want to see them, we've got to travel. They're there. With this phrase, space--or something like it --has entered the picture.”

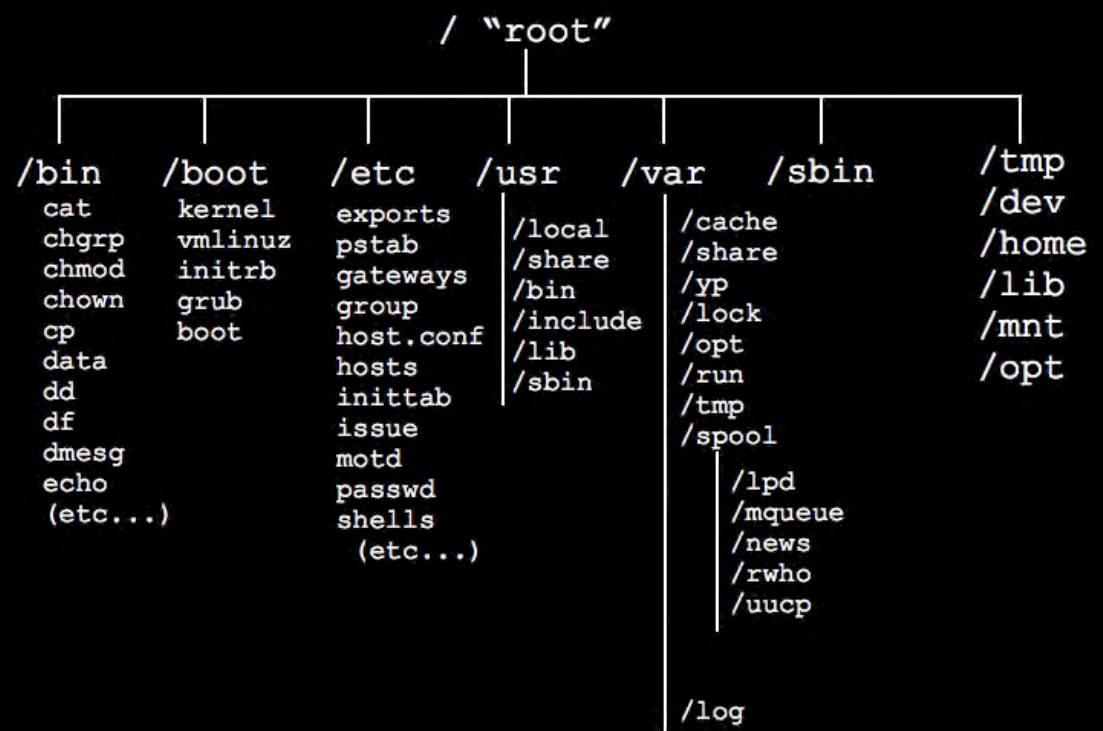
<http://www.smallpieces.com/content/chapter2.html>

The concept of shape assumes that an information space of any size has both spatial and semantic characteristics. That is, as well as identifying placement and layout, users

directly recognize and respond to content and meaning. - Andrew Dillon <http://dlist.sir.arizona.edu/1159/>

Dillon, Andrew (2000) Spatial semantics: How users derive shape from information space. *Journal of the American Society for Information Science* 51(6):pp. 521-528.

Spaces made of information, not atoms.



Infospace

53

So we have spaces made of information, rather than atoms.
>> For lack of a better word for this, I've been calling it "Infospace" ...

it's infospace that used to not be so much a problem, because it was esoteric and experienced only by a very few technologists who knew how to use it. There was no need to make it habitable for regular people.

And the Web changed all that.

(personally I'd like to call it cyberspace -- that's what William Gibson means by it, really ... he even says that cyberspace isn't some far-future thing, that it's here now, in things like E-bay ... but i digress)



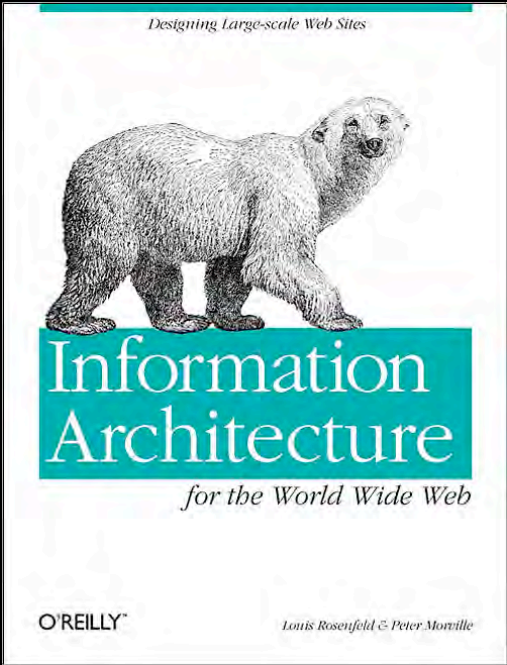
Peter Morville

“[Wurman IA] focused on the presentation and layout on a two-dimensional page; we focused on the structure & organization of sites”
(2000)



Lou Rosenfeld

“... not just what happens *on* pages, but what happens *between* them”
(1997)



Now ... just substitute “Context” for “Page”

So there’s more to the design challenge of the Web than just what to put on a web page; there was the problem of how and why to connect them all together.

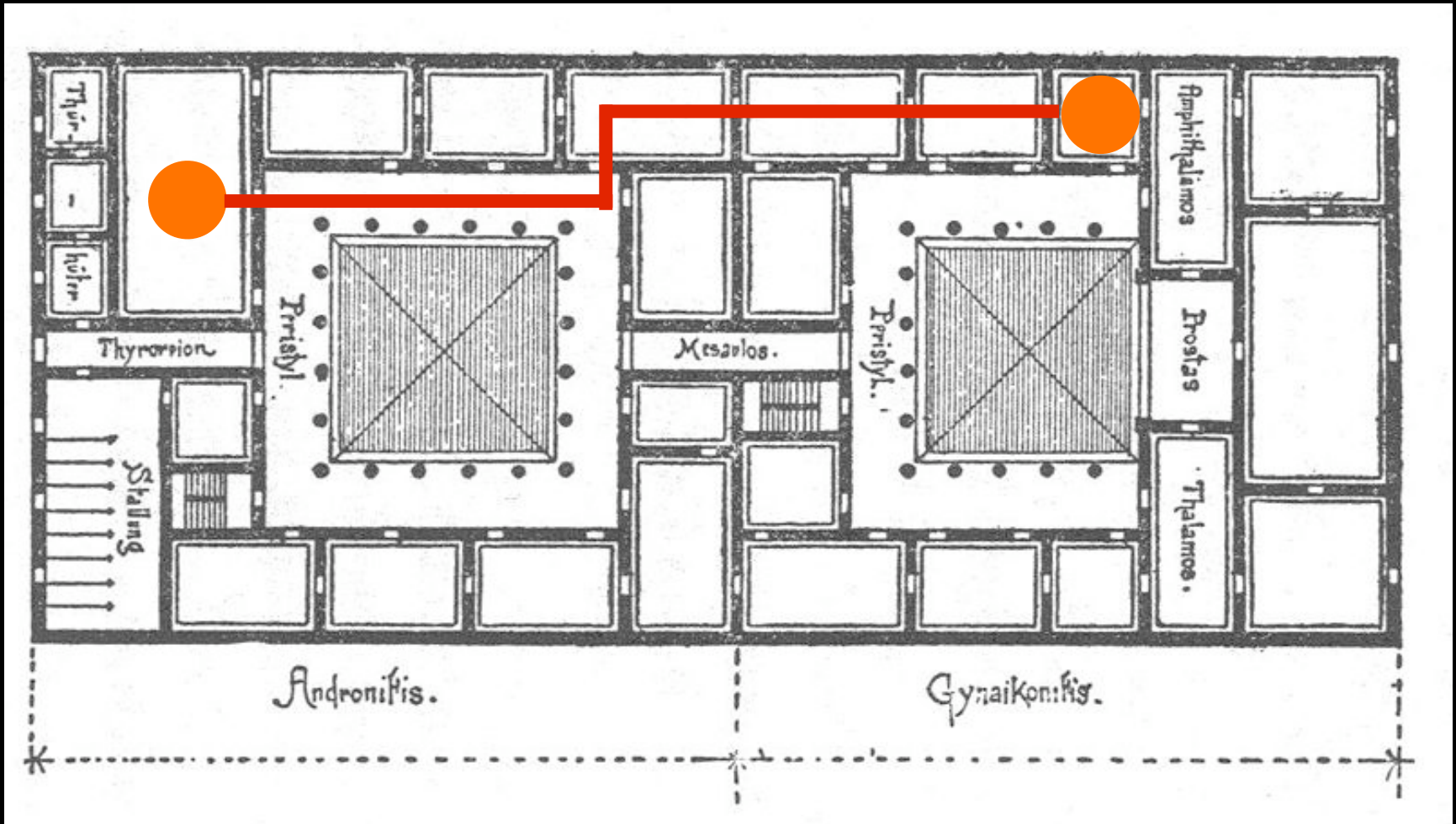
>> All I ask is that we stop thinking of “Pages” and think instead of “Contexts” -- and I’ll explain why in a little while.

Peter Morville: “We first began using the metaphor of building architecture as a way to explain our focus back in 1994. In 1995, we began writing the "Web Architect" column for Web Review magazine. Then, in 1996, Richard Saul Wurman's book Information Architects caught our eye. At first, we were excited by the notion that information architecture was becoming mainstream. But when we read the book, we realized that his definition of information architecture didn't match ours. He focused on the presentation and layout of information on a two-dimensional page. We focused on the structure and organization of sites.

We brashly decided that in our world view, Wurman was really talking about the digital equivalent of interior design or information design, not true information architecture. Of course, not everyone would agree. A healthy and sometimes heated debate over the definition of information architecture continues to this day. These debates are a good illustration of the ambiguity of language and of the political and emotional implications of information architecture design.”
http://www.oreillynet.com/pub/a/oreilly/web/news/infoarch_0100.html

"Argus' mission is to change the perception that information architecture pertains exclusively to the relationship of chunks of information *within* pages, as opposed to *between* pages." - L Rosenfeld
<http://a.jaundicedeye.com/stuck/archive/050897/article.html>

Architectural Function: “Utilitas”



Organizing Space by Shaping Context & Connection

55

A couple thousand years ago, Vitruvius explained the essential elements of architecture, and one was “Utilitas” or “Function” ... Here is a floor plan designed by Vitruvius.

The plan has labels explaining the spaces described -- Each room has an intended context.

>> In a building, you organize space in order to enable context of use. Space and Context are strongly related.

>>

A single context is just a room ... not many architectural decisions to make there beyond basic shelter.

>>

But when you start designing how people move from one room to the next, and why ... which rooms those should be, for what purpose, that's what the Utilitas of architecture is about.

<http://en.wikipedia.org/wiki/Image:Greekhse1.jpg>

Vitruvius is famous for asserting in his book *De architectura* that a structure must exhibit the three qualities of *firmitas*, *utilitas*, *venustas* — that is, it must be strong or durable, useful, and beautiful. <http://en.wikipedia.org/wiki/Vitruvius> (*firmitas*: structure; *utilitas*: function; *venustas*: beauty)

Shaping context & connection
is an act of architecture.



A new form of space requires a new
form of architecture.



Space made of information
requires information architecture.

We organize space by shaping context and connection, which is an act of architecture.

While Richard Wurman was using the term “architecture” in a somewhat metaphorical way for artifacts of representation, when used to describe **instantiated** space, the word “architecture” is no longer a metaphor. It’s literal.

>>
New forms of space require new forms of architecture --

>> space made of information requires information architecture.

Of course, I’m not saying that it’s the **same** as physical architecture ... I’m saying that now that we have these different sorts of space, we have different kinds of architecture, each with its own sets of expertise, methods and practices.

IA's central concern:
shaping structures
of context & connection
for infospace.

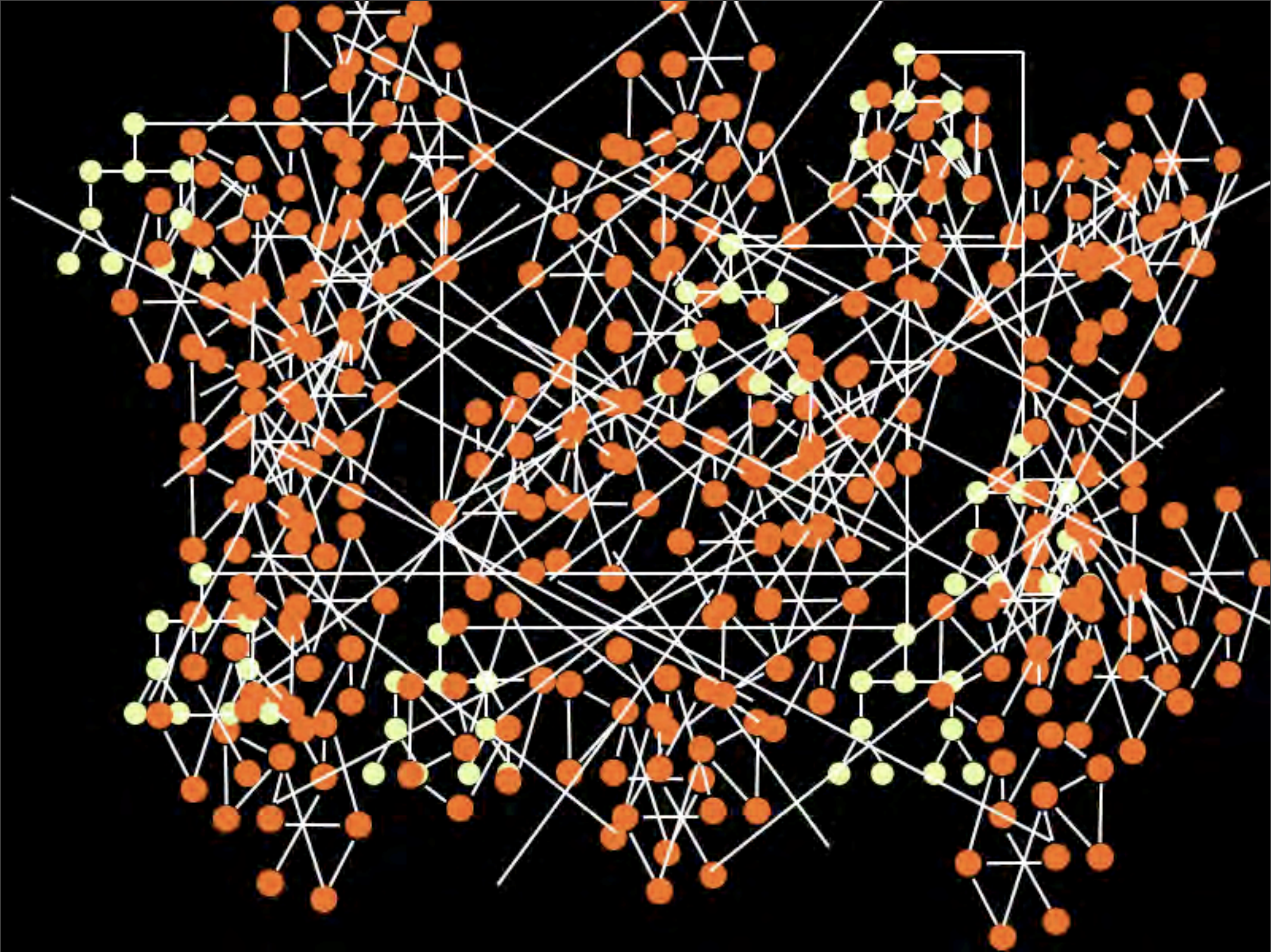
4

Structure

58

28 MINUTE MARK!

So what do we mean by structure? Let's investigate what sort of structure we're talking about here.
(this section 13 min)



Recall that the new design challenge was how to make sense of this mess so that people can engage the conversations they need, whether that's in the form of publications, discussions, multimedia or whatever.

Where could we turn for expertise
on organizing maps of information?

Library Science



61

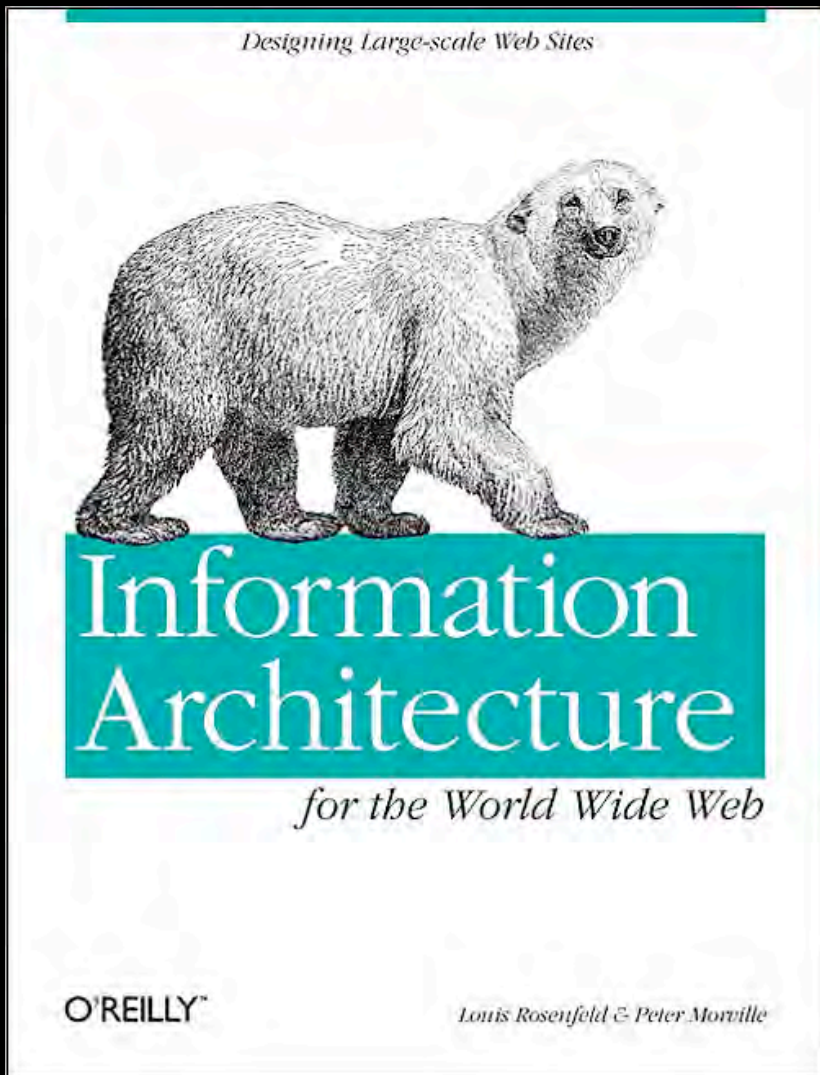
Library Science to the rescue.

Library science had long been in the business of designing maps for getting around information-based territories ... and this problem was a great fit for the Library Science skillset.

images:

<http://www.oc.ca.gov/lawlib/Catalog.htm>

<http://library.bethlehem.edu/publications/pamphlet/pamphlet1.shtml>



The book will be “... strongly
flavored with ... an
information science and
librarianship perspective ...”
Lou Rosenfeld, 1997

This was
(and still is)
a great start!

Early directions for information architecture were strongly influenced by this point of view... and that was never hidden.

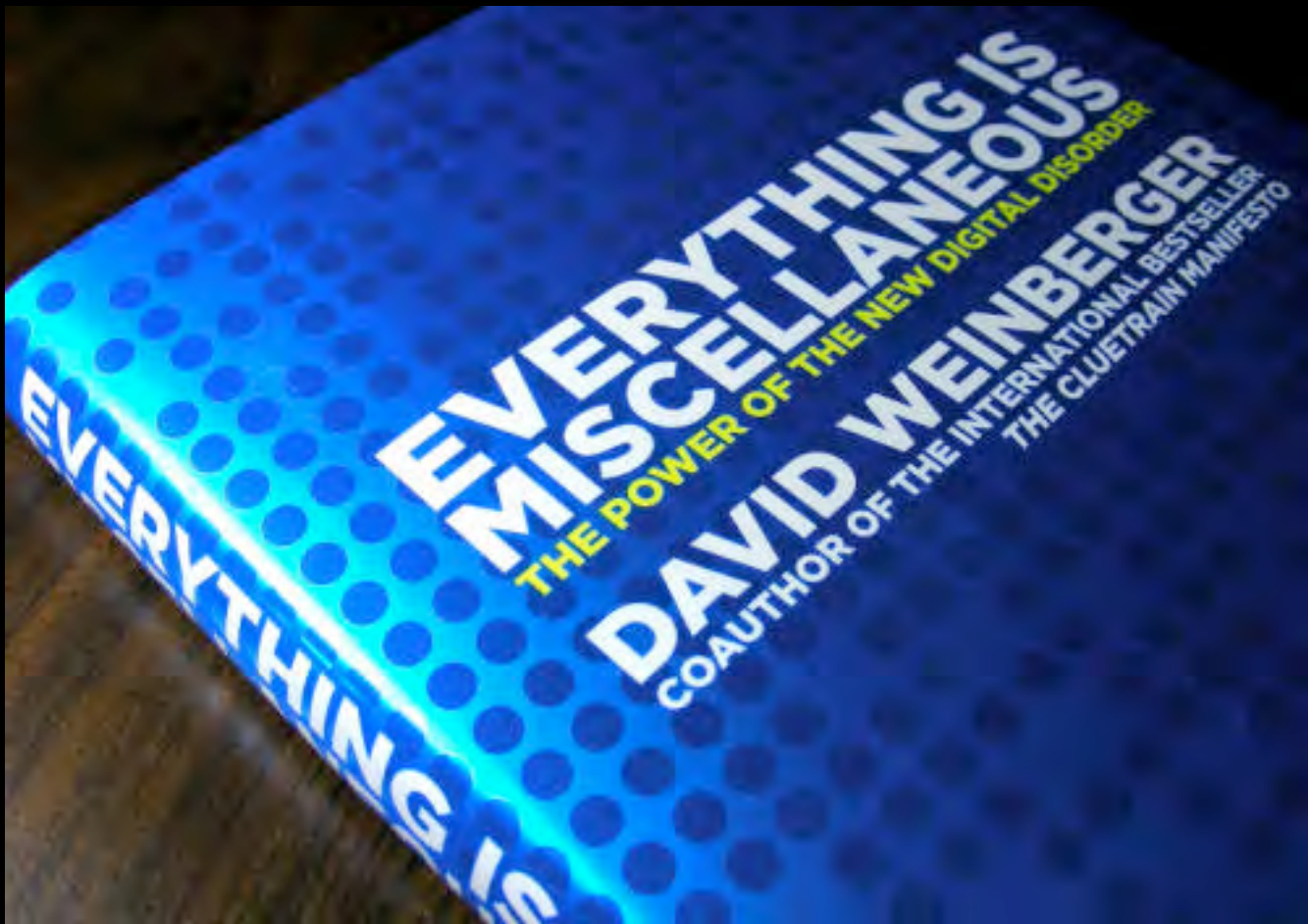
Here’s a quote from Lou, from an interview I found online from when he and Peter were writing the Polar Bear Book, admitting as much ... and frankly there’s no reason to apologize for this.

>> This was, and still is, a great start to how to make sense of all the ‘disorder.’ In fact, anybody practicing IA will always need a grounding in basic Library–Science–Flavored design techniques.

“strongly flavored with ... information science and librarianship perspective ...” - Lou R 1997 (interview at jaundicedeye.com)

Library Science -- a great fit for tackling this, because LIS understood the separation of data about things and things themselves.

Perception: there were things about the Web
that the wisdom of Library Science
may not have fully anticipated.



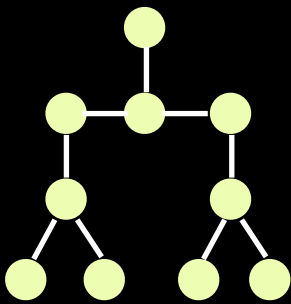
Three “orders of order”

64

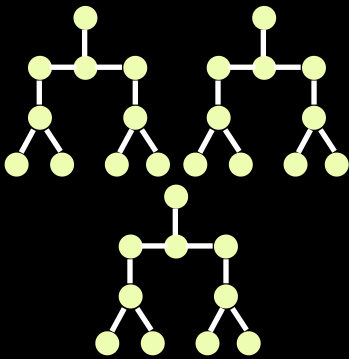
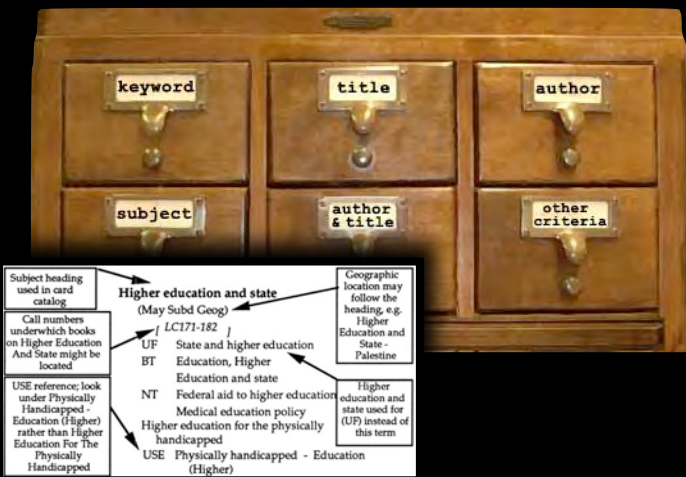
In Everything is Miscellaneous, David Weinberger explains what he calls the “three orders of order.”

image: <http://www.amazon.com/Everything-Miscellaneous-Power-Digital-Disorder/dp/customer-images/0805080430>

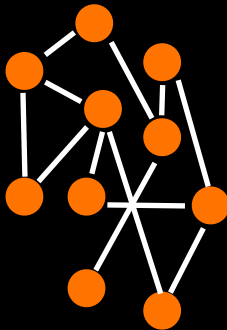
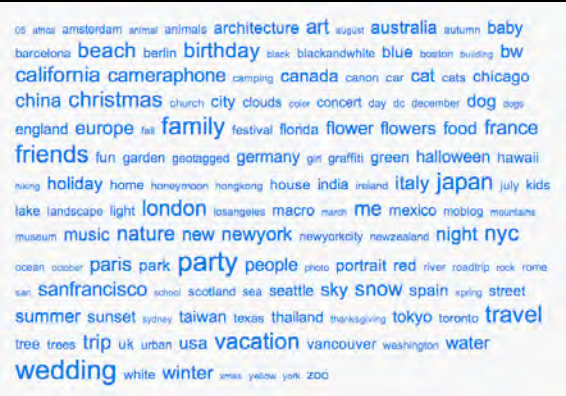
First Order



Second Order



Third Order



The first order is the physical stuff itself. The books on the bookshelf... they can only be arranged in one way, and no other.

>>
The second order is a layer of information that has been separated from the physical objects: meta-data that allow us to classify the first-order objects in multiple schemes and categories. It's usually done by experts and relies on standards, controlled vocabularies and formats.

The number of schemes is limited in part because, to expand it too far would mean the "map" would become so vast it would be unmanageable.

>>
The third order is something that the Web has in essence enabled -- a non-centralized, emergent and messy aggregate of how all individuals organize their own stuff, in their own idiosyncratic ways.

In the third order, the map is made of as many maps as people can make, and it's so very vast that nobody could ever comprehend it all. It's doesn't have the precision and planning of the 2nd order, so we may not find everything that's out there on a particular topic; but the economy of scale virtually guarantees we'll find *something* of value.

If you happen to be someone who is highly invested in the first two forms of order, this third form of order is going to make you a bit nervous ...

books: <http://www.fromoldbooks.org/pictures-of-old-books/pages/Books02/>

drawers: <http://www.oc.ca.gov/lawlib/Catalog.htm>

card example: http://library.bethlehem.edu/publications/pamphlet/pam1_1.jpg

tag cloud from flickr / pic found at: <http://lilt.msu.edu/vol10num2/emerging/>



Because now THESE PEOPLE are in control of organizing stuff online!

(that’s me on the right)*

*just kidding

(and in case anyone is tempted to think I’m being elitist here, please keep in mind there is something called sarcasm in the universe. kthxbai)

Oh Noes!! Flickr taggerz ate my job!!!



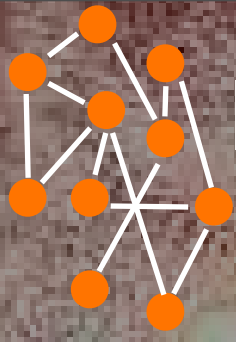
(Many IA practitioners circa 2006)

67

So when new platforms like Flickr, Delicious and others arrived,
some people got very worried! All these amateurs are going to be organizing things!
What is the world coming to?!

cat pic: http://www.dailyhaha.com/_pics/weirded_out_cat.htm

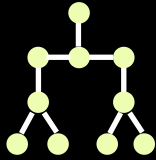
Third Order



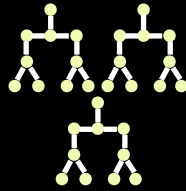
co africa amsterdam animal animals architecture art august australia autumn baby barcelona beach berlin birthday black blackandwhite blue boston building bw california cameraphone camping canada canon car cat cats chicago china christmas church city clouds color concert day dc december dog dogs england europe fall family festival florida flower flowers food france friends fun garden geotagged germany gin graffiti green halloween hawaii hiking holiday home honeymoon hongkong house india ireland italy japan july kids lake landscape light london losangeles macro march me mexico moblog mountains museum music nature new newyork newyorkcity newzealand night nyc ocean october paris park party people photo portrait red river roadtrip rock rome san francisco school scotland sea seattle sky snow spain spring street summer sunset sydney taiwan texas thailand thanksgiving tokyo toronto travel tree trees trip uk urban usa vacation vancouver washington water wedding white winter xbox yellow yos zoo



First Order



Second Order



And, according to some pundits, the first and second orders are weak and puny, and will be DEVoured by the dripping maw of THE THIRD ORDER. Survival of the fittest!

This debate is what I've dubbed ...

books: <http://www.fromoldbooks.org/pictures-of-old-books/pages/Books02/>
drawers: <http://www.oc.ca.gov/lawlib/Catalog.htm>
card example: http://library.bethlehem.edu/publications/pamphlet/pam1_1.jpg
tag cloud from flickr / pic found at: <http://llt.msu.edu/vol10num2/emerging/>
dino: http://www.24hourmuseum.org.uk/content/images/2006_1718.JPG



Clay Shirky

“There’s no such thing as an information architecture ...”

“Every tag is a bookshelf.”



David Weinberger

TAG WARS



Josh Porter

“IA [is] built on the assumption that a single way to organize things can suit all users...”

“trees better than leaves”



Peter Morville

The TAG WARS.

For a while, we had lots of, shall we say, debate ... about the best way to organize information.

Now, these and many others are all reasonable people, and it was mostly a friendly debate ... but I think there’s still lingering misunderstanding and resentment here and there.

I’m here to say that ...

shirky: quote is (only slightly) paraphrased from his Long Now presentation. (longnow.org)

porter: quote from bokardo.com

morville: paraphrased from Ambient Findability

weinberger: this was a twitter post in March 2008

Everybody needs to chill out.



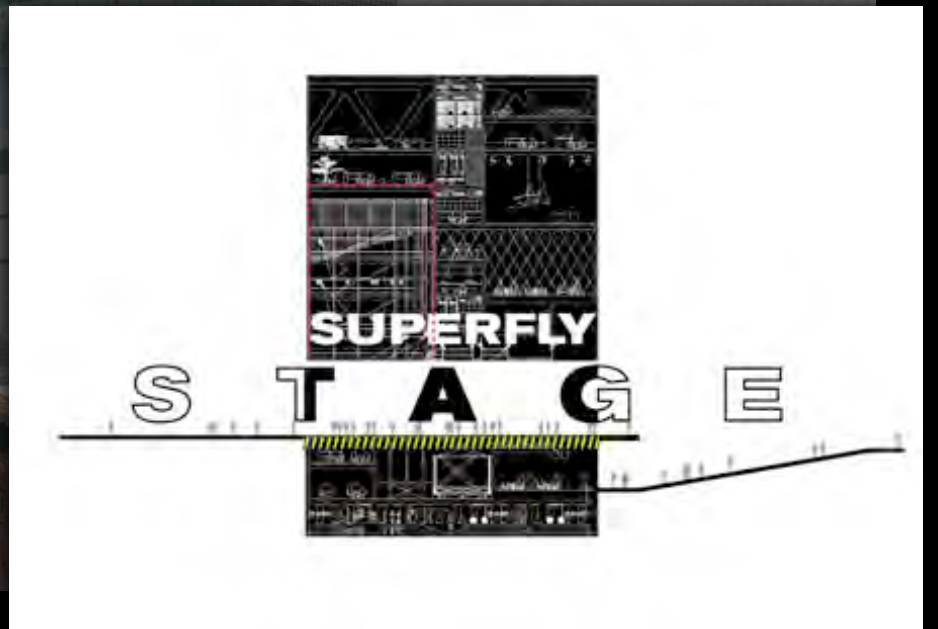
70

... everybody needs to chill out.

Relax. East some Chunky Monkey.

And let's look at what's really going on here.

Does this mean this building has no architecture?



71

Last year we had a real-live architect speak to us in Vegas, and he told us about this way-cool theatre that their firm designed for Dallas, Texas, the Wyly Theatre.

>>

It's like the Optimus Prime of Theaters!

It's designed so that its users can organize it in a half dozen different configurations. It gives the users a choice between various uses ... some of them so open-ended that they could use it for almost anything.

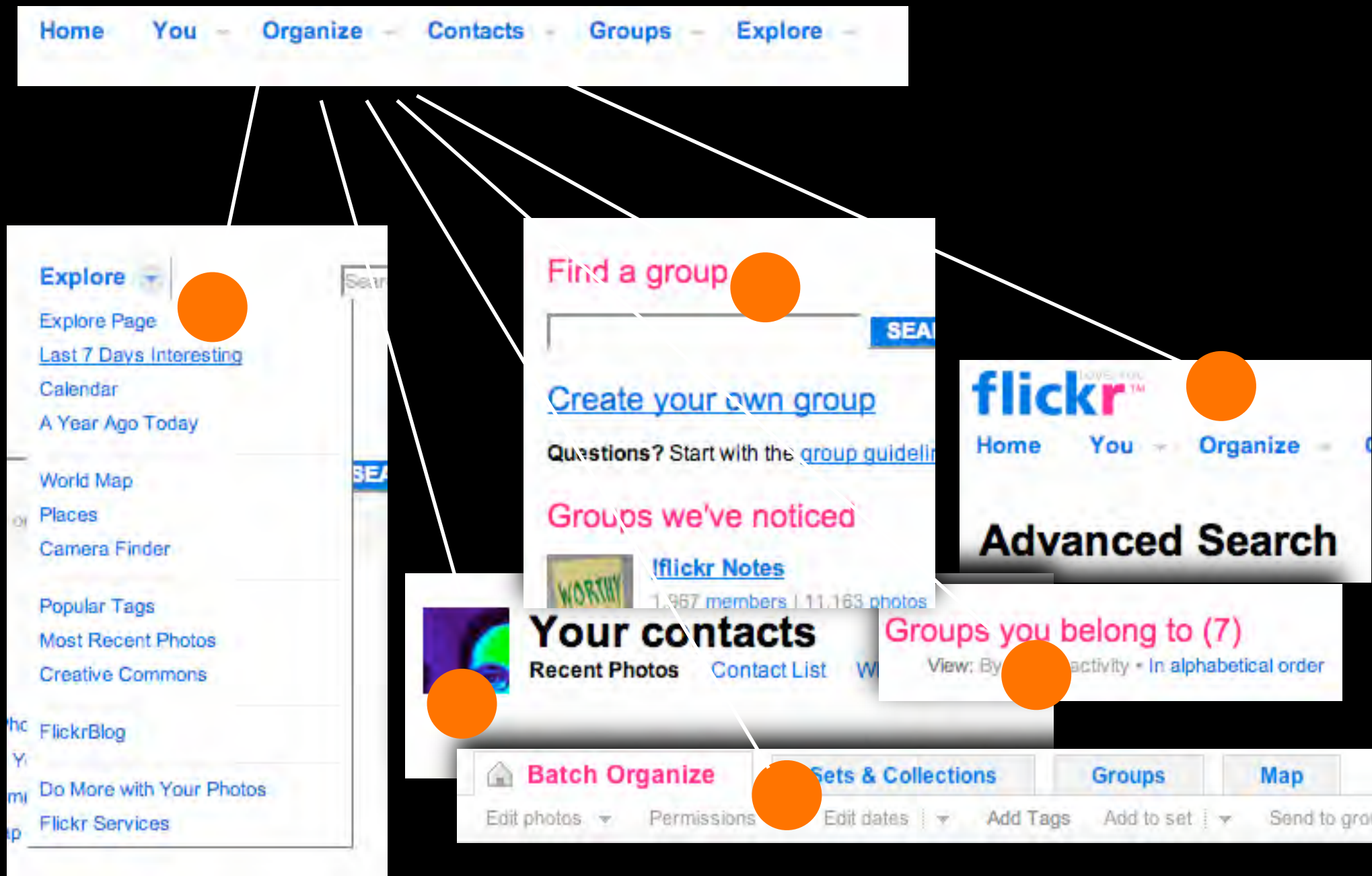
>>

Does that mean that this building has NO architecture?

Of course not. The design of the mechanism that allows its transformation is, itself, architecture.

images: <http://www.rex-ny.com/work/wyly-theatre/#>

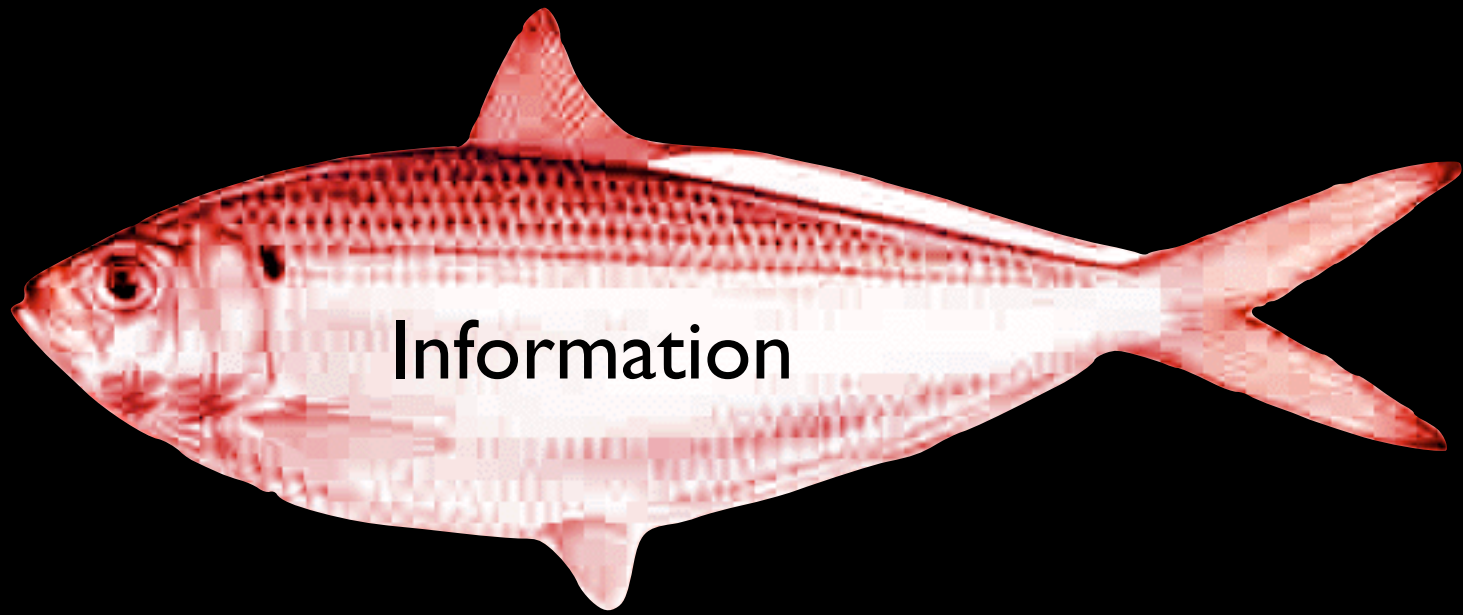
[Add a tag](#)



Everything on Flickr isn't up to users. In fact, very little really is.

Users can't decide whether there's a "create your own groups" area, or a world map or a camera finder; they didn't decide there would only be three categories for contacts; users didn't decide on the attributes for advanced search! Look at all that architecture!

Focusing exclusively on “information” is a red herring.

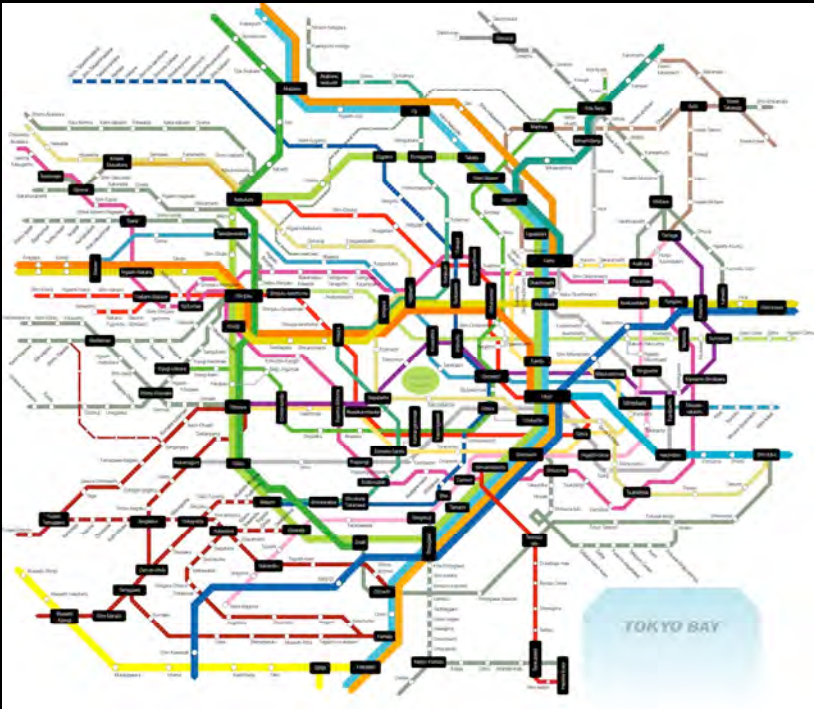


It distracts us from what we're actually affecting.

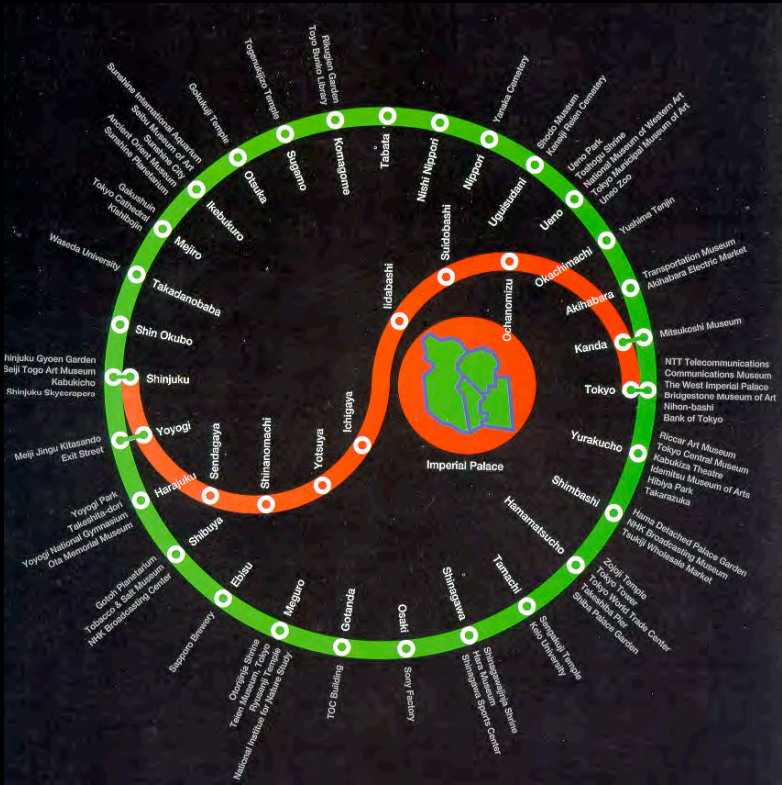
Focusing exclusively on Information -- or the “inventory” of an information space -- is a red herring.

It distracts us from what we're really doing when we manipulate and design information structures.

Sometimes Common Maps are Important



?



Know the sort of conversation you're designing for.

The third order of order is great, yes ... having a million different ways of organizing things has its benefits.

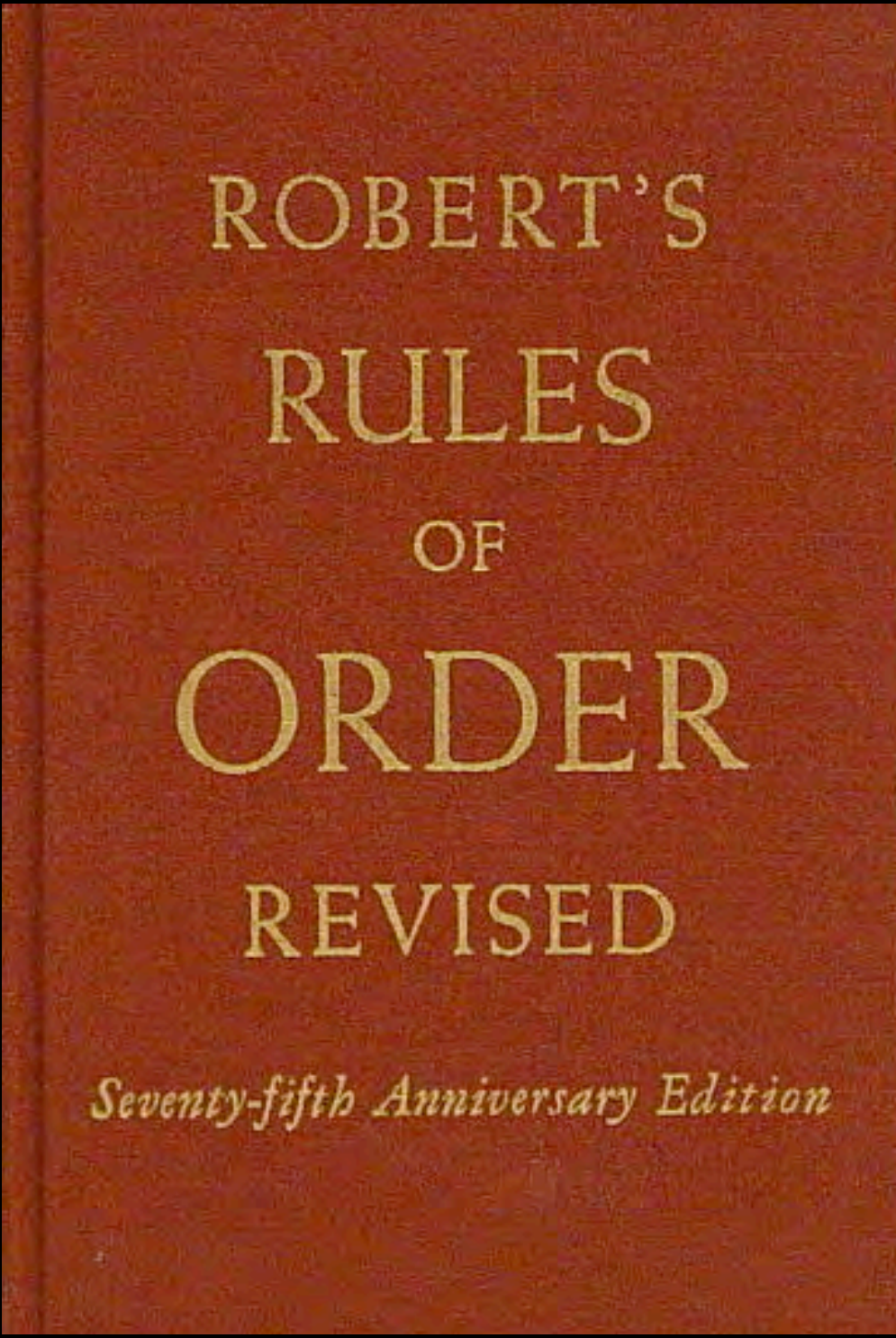
But sometimes, having a common map is important, at least at some level of structure.

Both of these maps of the Tokyo Subway accurately represent the subway, they just use two different ideas of accuracy.

If you have one and I have another, it could hinder our ability to have a useful conversation about that space.

>>

You have to know the kind of conversation you're designing for.



Great for the board room.

Unwelcome in a pub.

Formality and predetermined structures have their uses.

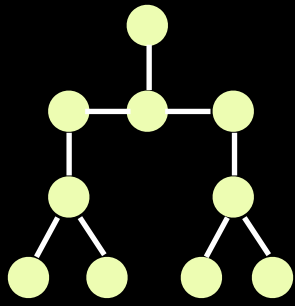
Board meetings and committees often need the structure provided by something like Robert’s Rules of Order ...
>>

But if you whipped it out at a pub during a talk with friends, you’d find it very unwelcome.

image: <http://www.newkent.net/rulespic.html>

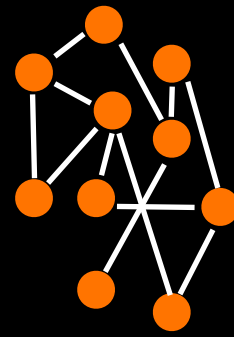
A Question of Balance

Shared Maps



Enforcing the Standard

Personal Facets



Enabling the Personal

Keeping in mind, these are not mutually exclusive.

We're often faced with this decision -- how standardized and shared should various levels be?

There are trade-offs between structures that enforce standards, and mechanisms that enable personal activity.

We just need to remember that these aren't mutually exclusive ... and they both represent architectures that need to be designed.

“Possibility Spaces”



Will Wright

I think (as usual) that we can look to game design for some useful wisdom on this point ...

Will Wright, creator of Sim City & The Sims and Spore, talks about Possibility Spaces.

Basically, rather than creating pre-programmed, scripted, linear experiences, we create frameworks, geographies ... architectures within which people make their own meaning.

<http://www.wired.com/wired/archive/14.04/wright.html>

photo from wired.com

quote is from his Long-Now talk at longnow.org

Structures within which users make their own meaning.



79

What Flickr and similar platforms do is create structures within which people make their own connections, organize their own data, and make their own meaning.

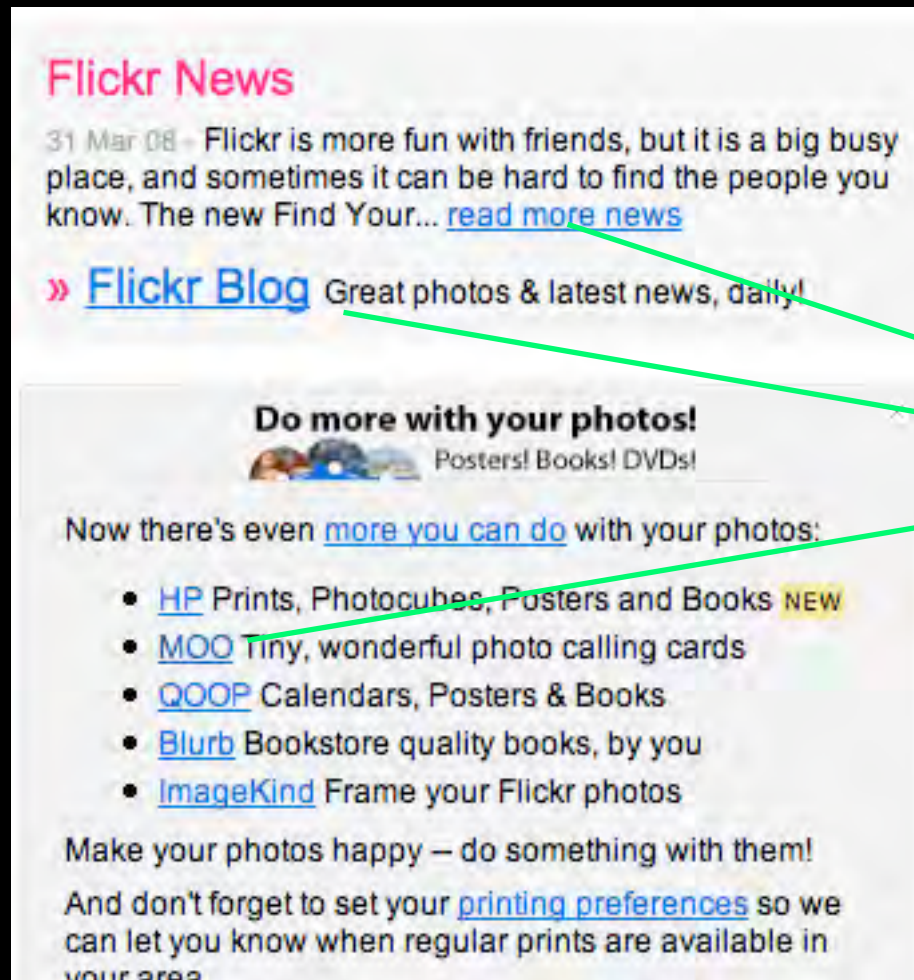
>>

But instead of having walls and doors to work with, we create these spaces with Links, Categories and Rules.

(links categories & rules is just the best thing I can come up with for the moment ... we need to keep working out how to articulate the 'stuff' we manipulate & shape to cause the effects we're after in IA)

Links

Current
Context



Links to
Other
Contexts

(See added info about this and next slide in the notes area.)

80

[NOTE: This slide and the next, I skipped in order to get my deck slimmed down for the talk; but I'm adding them back in for slideshare so that people can see a bit of what I was getting at. This Links/Categories/Rules bit is, admittedly, somewhat rough -- but we do need a (pattern?) language for talking about the things we use to shape infospace.]

So let's look at Flickr again as an example of what we mean.

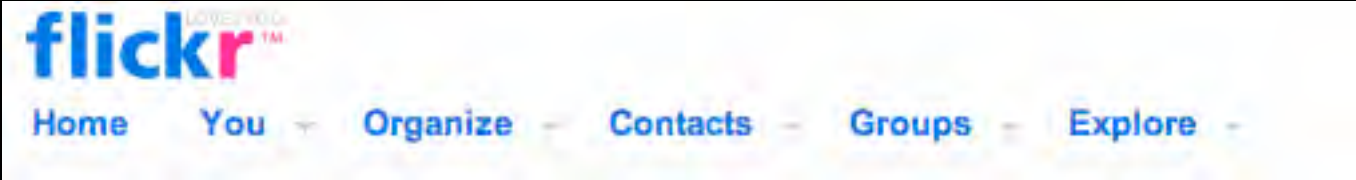
Here's a section of the home page.

>> It's the "current context"

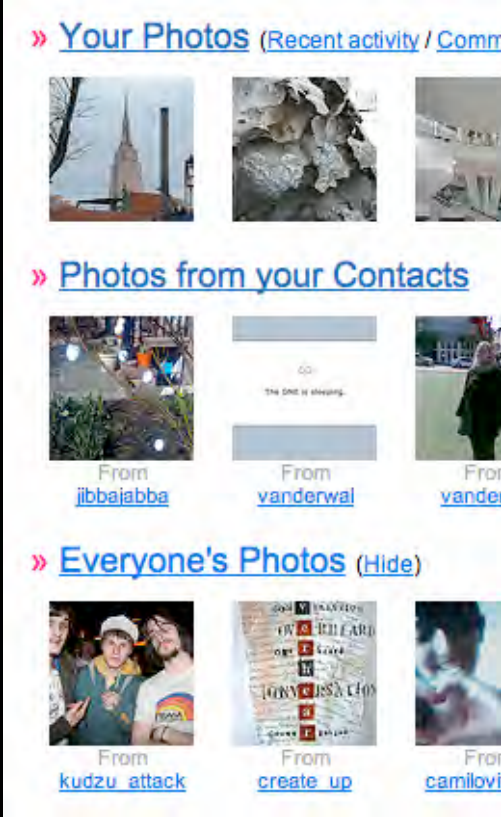
>> But it offers links to Other Contexts.

Categories

Contexts by Function



Contexts by Source



A Context for Searching by Emergent Semantics

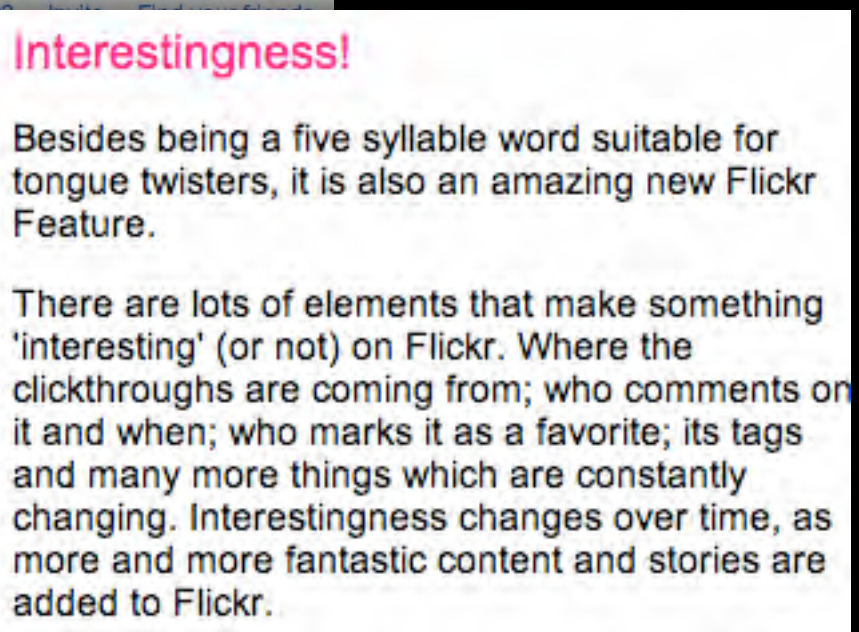
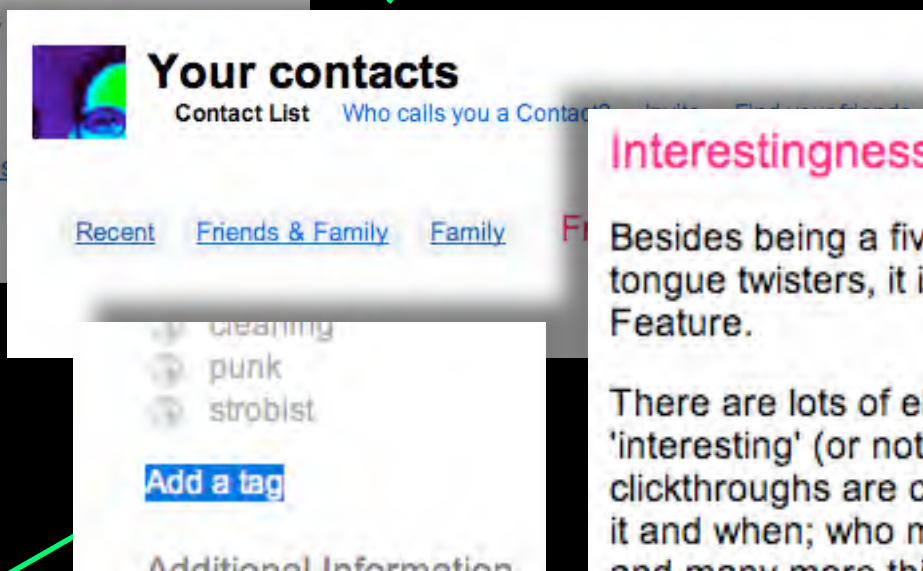
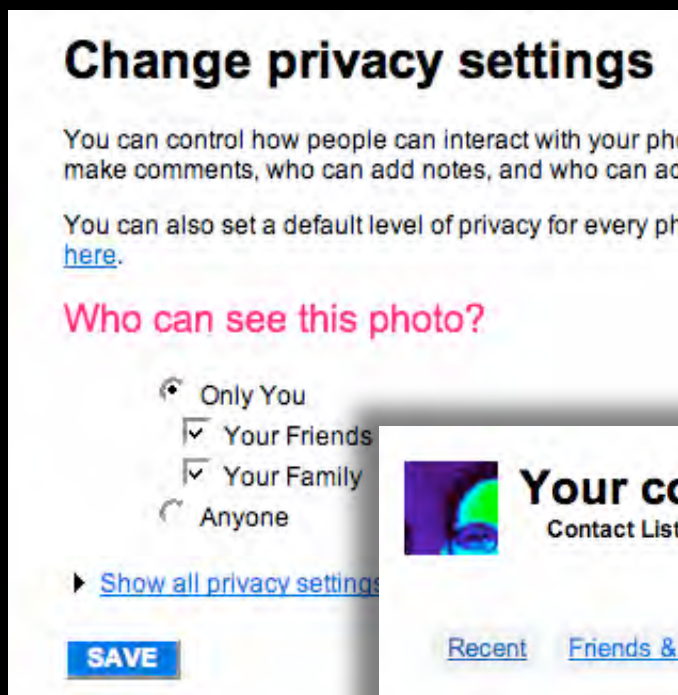


Contexts can be created by categorizing information spaces.

- >> For example, on Flickr there are contexts arranged by function, forming a super-structure for the site (at least from the home-page).
 - >> There are contexts for the “inventory” of the site, organized by source.
 - >> And there are the emergent semantic contexts that come from meta data & tagging.
- I’ve put a lot under this heading, and it includes a lot of what we tend to associate with things like taxonomies, thesauruses, and classification.

Rules

Access Permissions



Editing Rights

Algorithmic Context

82

I think we already know about Links & Categories, which includes all the stuff we usually think of as IA work; in fact, when you create a link or category, you're in effect creating a rule anyway.

... but what about the matter of literal Rules?

This is something we haven't been talking about as much, because it doesn't quite fit the conventional library-centric view of IA.

But it's very important to context and connection.

Looking to Flickr again for examples . . .

>> You can change privacy settings, based on how you categorize your contacts.

>> You can decide whether or not other people can tag your photos -- essentially, whether others can edit your content.

>> And the system does some rule-making on its own, deciding what is going to show up on the Interestingness area based on aggregate rules involving who has commented or tagged or favorited a photo.

Rules are an important part of architecture: what can people see? what is hidden? who can do what or go where? These are all questions of context and connection and shaping infospace.

"We are literally encoding the principles of ... freedom of expression in our tools."



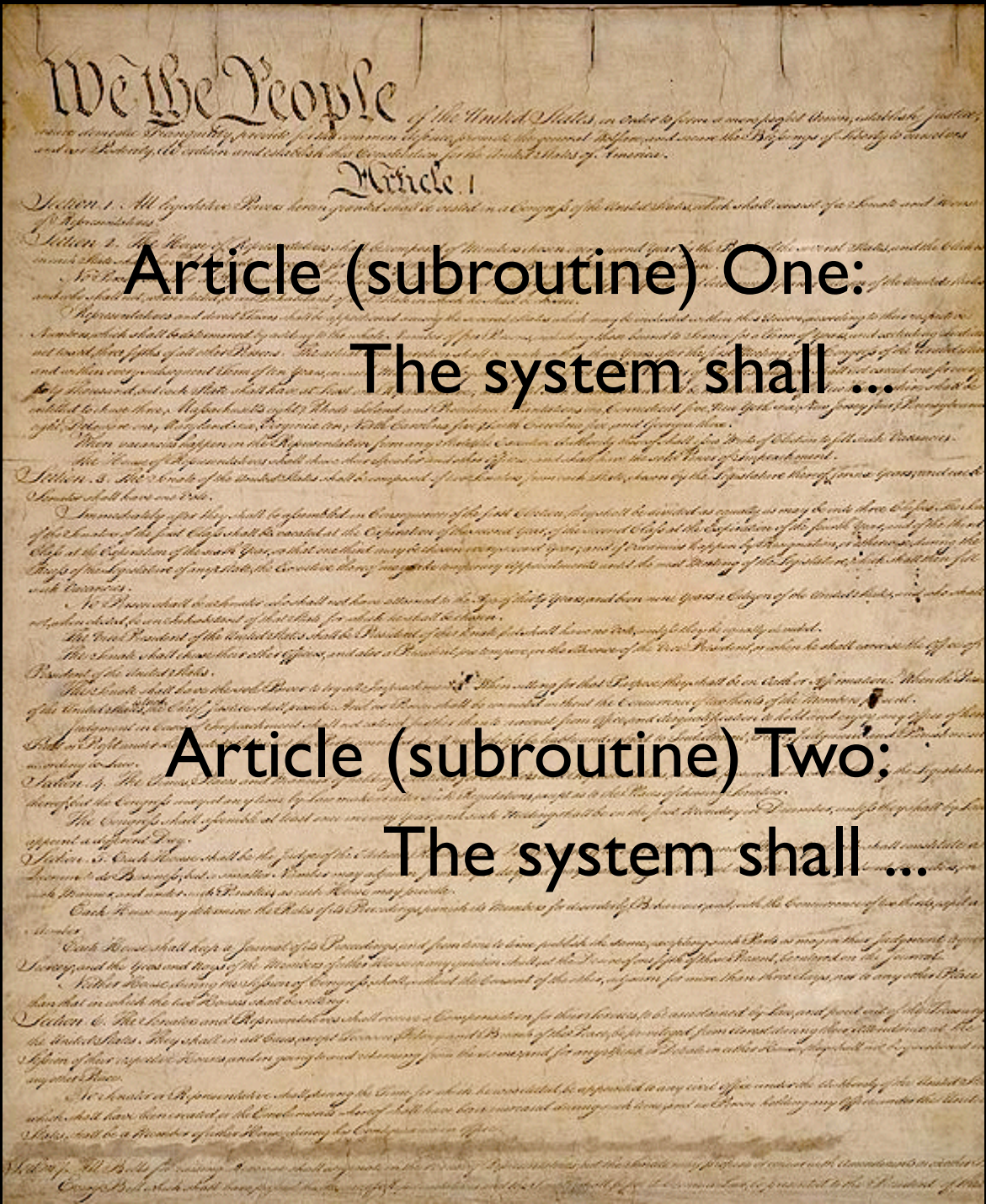
Clay Shirky

Clay Shirky has been challenging people like us to wake up to these decisions for quite some time.

He says we're literally encoding principles of freedom into our tools ... and he's right!

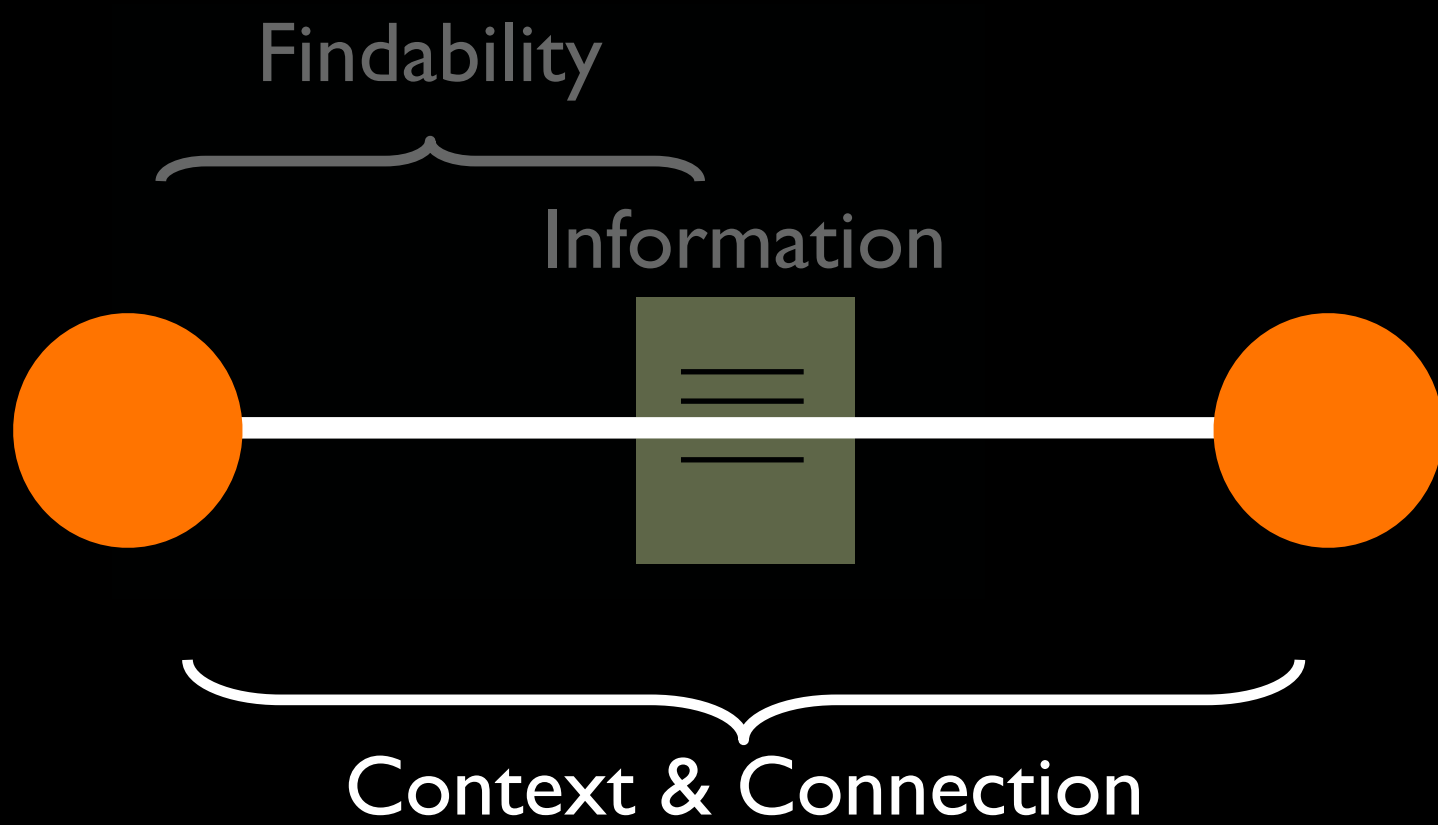
We shouldn't leave this stuff up to so-called "business rules" ...

http://radar.oreilly.com/archives/2006/03/etech_clay_shirky.html



People all over the world are spending significant parts of their lives dwelling in the software we design.

>>
We’re actually creating things that work like governments when we create these spaces, and we need to take it seriously.



What I hope I'm doing is re-framing what Information Architecture is about, and has been about all along, whether we fully realized it or not.

Many people perceive IA as being about getting the individual to a particular piece of information.

>>

That's certainly a very important part of the work. It's what we've been calling "Findability."

>>

Yet Findability is only useful in service of the greater whole of context & connection.

That's where the conversation is, and where the architecture really lives.

Infospace Contexts & Connections



Information Pages & Links

86

It's like the old zen parable of the teacher pointing to indicate the moon, while the student looks at the teacher's finger ... the teacher says "why do you look at my finger, and not the moon?"

>>

The information is just a conduit material ... a medium ... for context and connection.

The central concern of IA isn't making the information neat and tidy; and it's not about web pages; it's about enabling useful context and connection in this new kind of space.

"With regard to relying on the meaning, meaning itself is beyond debate of such matters as, like against dislike, evil against virtue, falsity against truth. Hence, words may indeed have meaning, but the meaning is not the words. Consider, for example, a person instructing us by pointing to the moon with his finger. [To take words to be the meaning] is like looking at the finger and not at the moon. The person would say, 'I am pointing to the moon with my finger in order to show it to you. Why do you look at my finger and not the moon?' Similarly, words are the finger pointing to the meaning; they are not the meaning itself. Hence, do not rely upon words."

http://www.shinranworks.com/majorexpositions/kgssVI-68_72.htm

moon image: http://www.unm.edu/~abqtom/observing_the_moon.htm

5

Identity

87

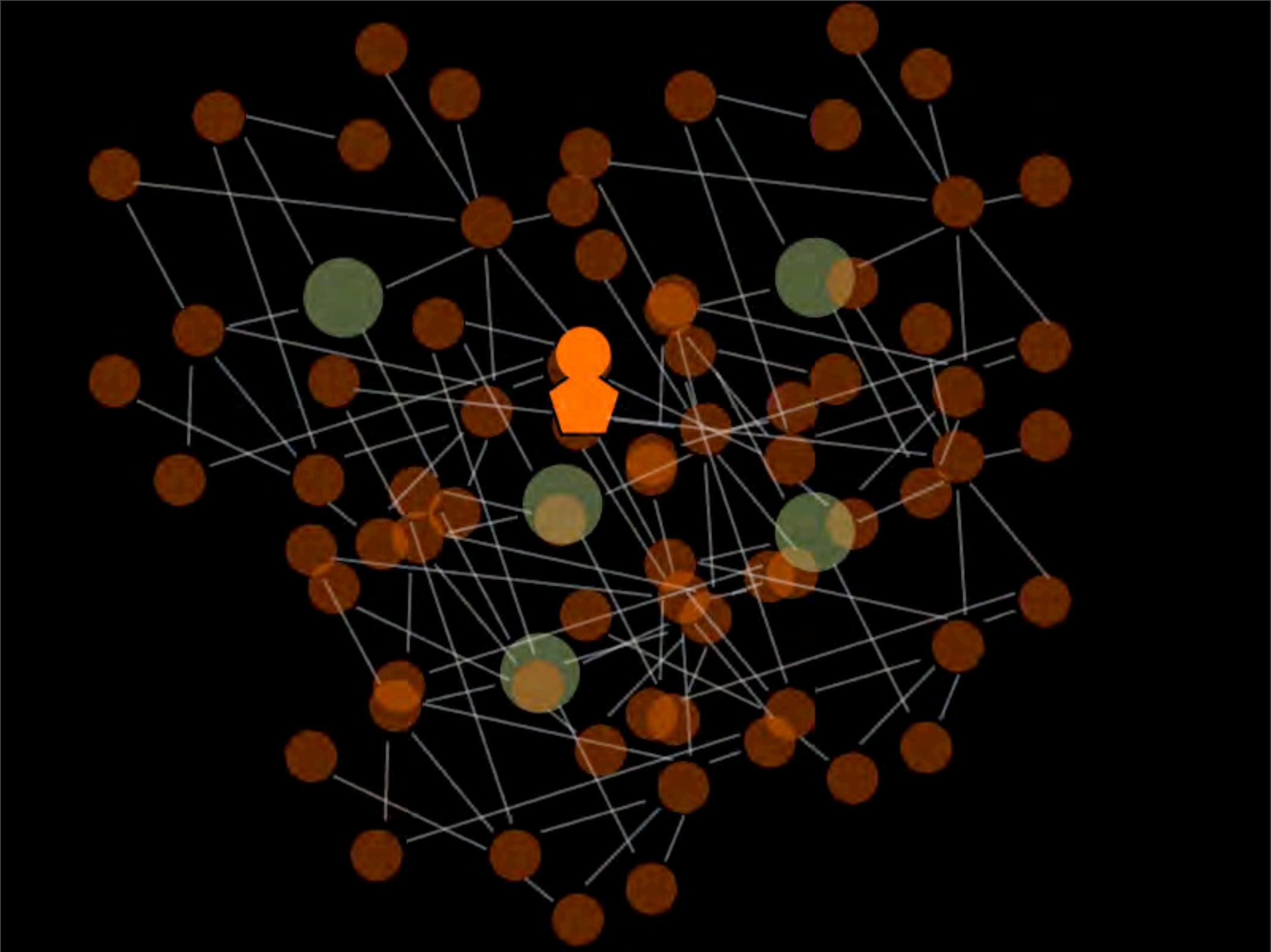
41 MINUTE MARK!

(15 min this section)

Now... after talking about all that, I'm sure at least a few of you are chafing a bit.

You're thinking -- this guy is trying to tell me who I am, and I'm not sure I like that ...

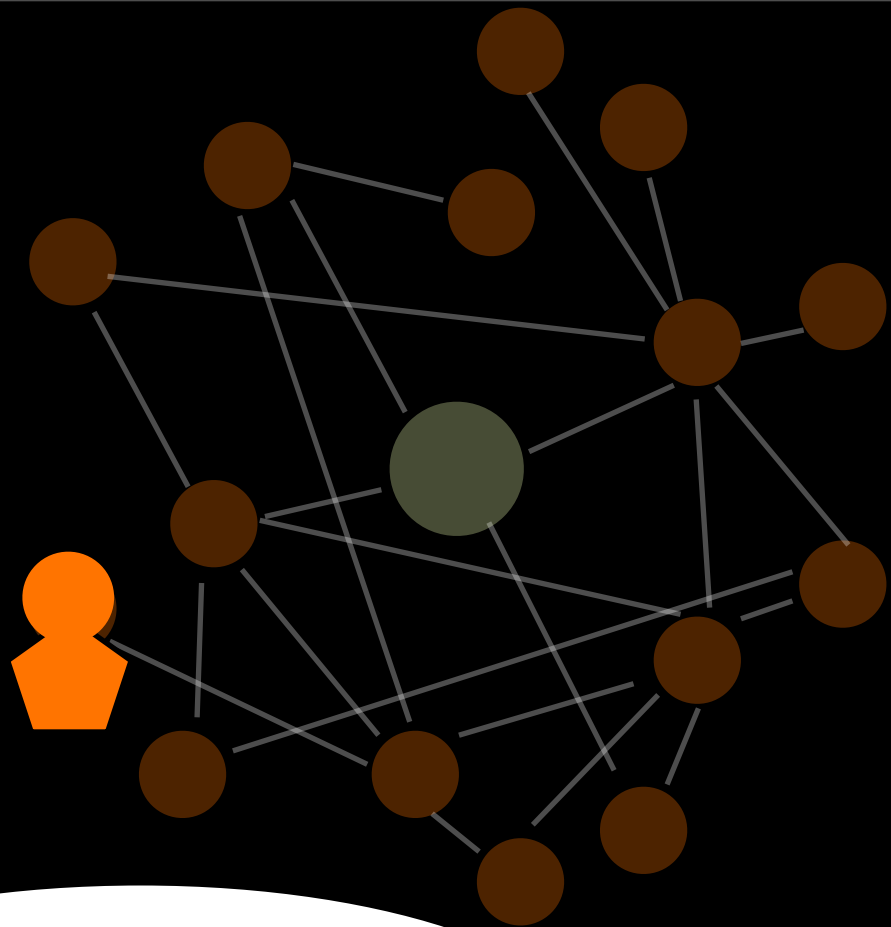
I'd like to spend the last bit of time touching on aspects of how we can look at practice and identity, and how they're evolving into the future.



Even though all of us tend to be involved in multiple practices . . .

based on p 58 “Communities of Practice: Learning, Making & Improving” – Wenger

Each of us tends
to *identify* with a
practice.



Communities of Practice are
“homes for identities ...”

Etienne Wenger

We still tend to gravitate toward a single affiliation.

>> Wenger has a fascinating explanation for how participation in communities of practice shapes our identity ... and that would take hours to get into ... but suffice it to say that identifying strongly with one's practice is a very natural, powerful human pattern. In some ways it's unavoidable.

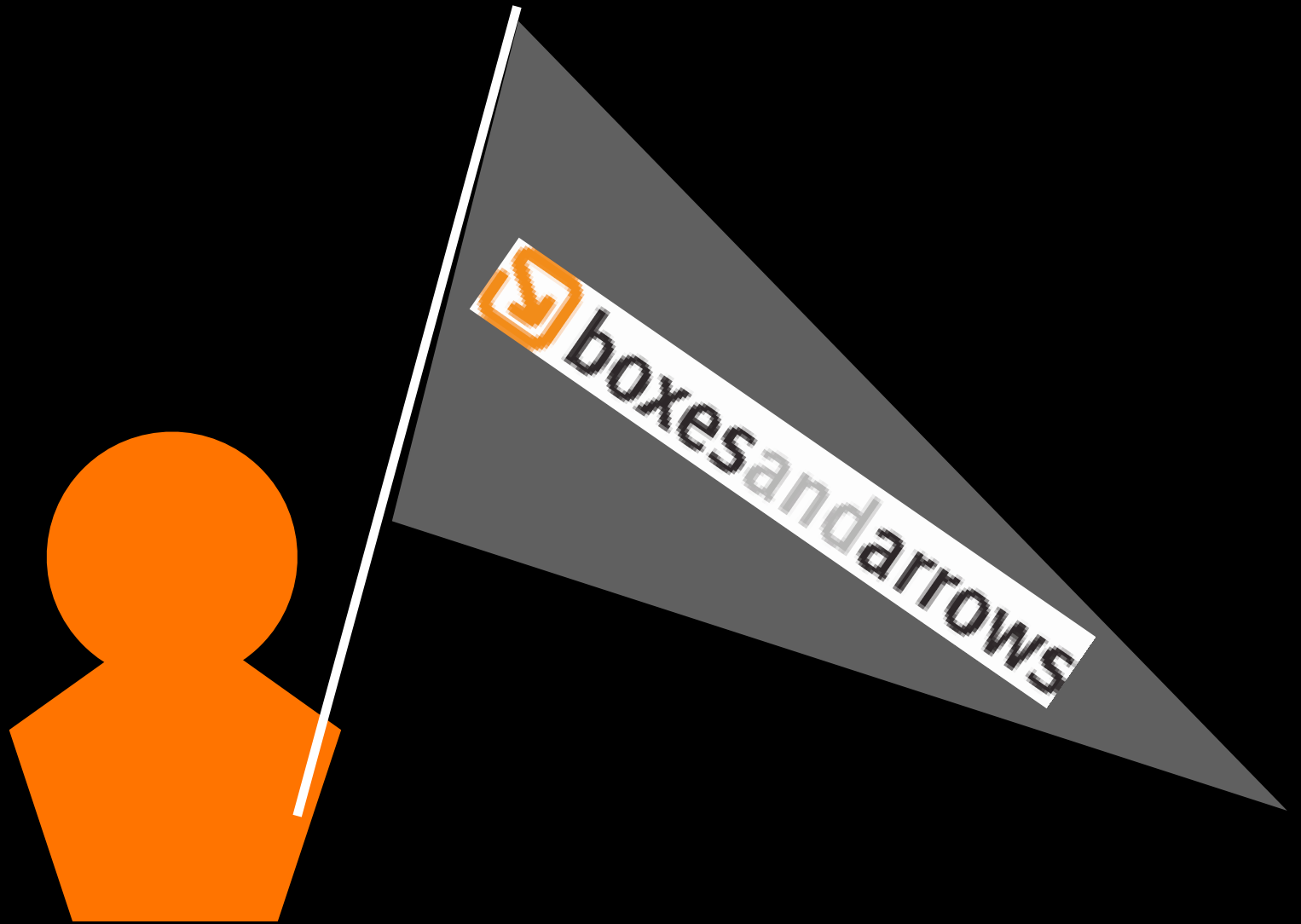
It's a compulsion that drives all kinds of group identities, from unions to sports teams to nationalism.

based on p 58 “Communities of Practice: Learning, Making & Improving” – Wenger

Also Wenger here:

“They provide homes for identities. They are not as temporary as teams, and unlike business units, they are organized around what matters to their members. Identity is important because, in a sea of information, it helps us sort out what we pay attention to, what we participate in, and what we stay away from. Having a sense of identity is a crucial aspect of learning in organizations. Consider the annual computer drop at a semiconductor company that designs both analog and digital circuits. The computer drop became a ritual by which the analog community asserted its identity. Once a year, their hero would climb the highest building on the company's campus and drop a computer, to the great satisfaction of his peers in the analog gang. The corporate world is full of these displays of identity, which manifest themselves in the jargon people use, the clothes they wear, and the remarks they make. If companies want to benefit from people's creativity, they must support communities as a way to help them develop their identities.”

<http://www.co-i-l.com/coil/knowledge-garden/cop/lss.shtml>



Even our tools and methods often become symbols in this group identity dynamic.

Our publications and conferences sometimes behave like “flags” that, when attached to us, help reinforce our identity.

based on p 58 “Communities of Practice: Learning, Making & Improving” – Wenger

Also Wenger here:

“They provide homes for identities. They are not as temporary as teams, and unlike business units, they are organized around what matters to their members. Identity is important because, in a sea of information, it helps us sort out what we pay attention to, what we participate in, and what we stay away from. Having a sense of identity is a crucial aspect of learning in organizations. Consider the annual computer drop at a semiconductor company that designs both analog and digital circuits. The computer drop became a ritual by which the analog community asserted its identity. Once a year, their hero would climb the highest building on the company's campus and drop a computer, to the great satisfaction of his peers in the analog gang. The corporate world is full of these displays of identity, which manifest themselves in the jargon people use, the clothes they wear, and the remarks they make. If companies want to benefit from people's creativity, they must support communities as a way to help them develop their identities.”

<http://www.co-i-l.com/coil/knowledge-garden/cop/lss.shtml>



Which may explain ...

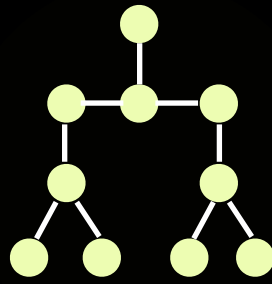
Why the country of Mozambique has an AK 47 on their Flag.

As you can see, identity can become a heavy deal ... so a little self-awareness can go a long way.

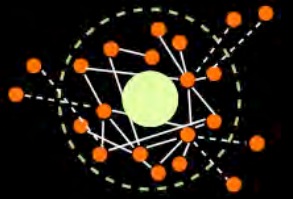
http://en.wikipedia.org/wiki/Image:Flag_of_Mozambique.svg

IA as a ...

Title: a label one can be called,
whether or not their work has anything to do
with the thing, practice, activity or role.



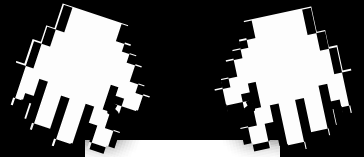
Practice:
shared history of learning among people who affiliate with the role.



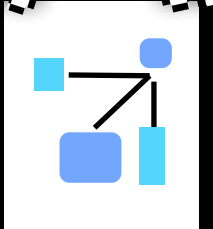
Role:
the ‘hat’ for the person performing the activity on the thing at the moment.



Activity:
the actual work of designing the “thing.”



Thing:
the designed ‘stuff’ itself.



92

(3 minutes this slide)

It’s understandable that we get emotional about this topic, because it relates to our very identities.

We throw the term “IA” around a lot ... but it can mean a number of different things. And it’s helpful to be clear on the distinctions. And, by the way, I think these are useful distinctions for **any** practice, not just IA.

>> IA as a thing: the object we work on, the material we work with. We might say “hey could you look at the IA in these wireframes and see if it makes sense?”

>> IA as an activity: the literal act of working on the ‘thing’ ... “doing” IA.

>> IA as a role: the “hat” you wear that says “I’m a person working on this at the moment” ... like in baseball, for a while you’re a pitcher, then later you’re a batter. These are just temporary roles used to designate what activity you’re performing.

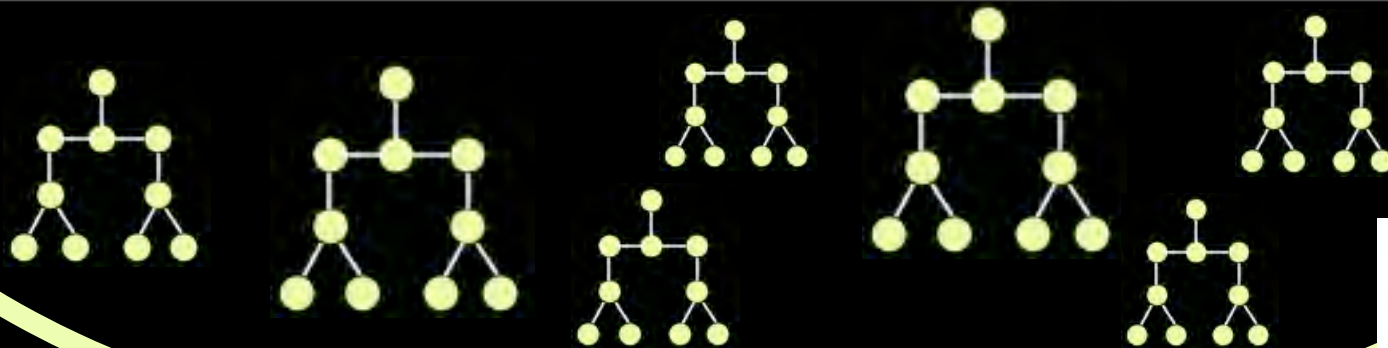
>> IA as a practice: the shared history of learning among people who affiliate strongly with the role over time.

>> IA is sometimes a title: but titles are really different ... they’re not necessarily based on the actual work you do or the practice you affiliate with; they’re arbitrary labels assigned to you by some authority.

This is a real problem point for practitioners, because it’s easy to slip into the logical fallacy that: if my title is Information Architect, then everything I do in my job must be information architecture. But doesn’t necessarily have anything to do with the emerged PRACTICE of IA.

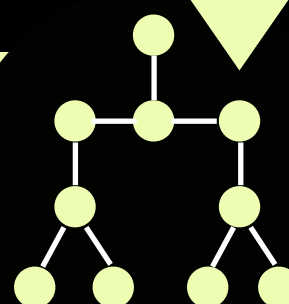
Conversely, if your job is almost entirely about the Practice of IA, and your title is something different, like “Technical Analyst” or “Usability Specialist” -- that doesn’t mean you’re not allowed to affiliate with IA as your practice of choice.

It would be great if the whole world standardized on every title, but the vast majority of practices don’t work that way.



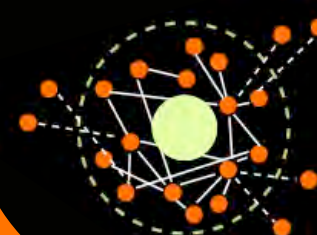
Discipline

Established standards, definitions & curricula, planned from the top down.



Practice

Community & shared history of learning, coalescing around a shared central concern (domain).



93

(1.5 min this slide)

Getting titles consistent depends on standards. And standards emerge over time, after practices institutionalize themselves.

>> There's an outside world of standards and authorities, and the practice eventually seeks a sense of authority.

>> It needs a way to interface with this world of "official" institutions, rules and disciplines.

>> So a practice sort of "grows" a discipline -- a kind of carapace of official group identity.

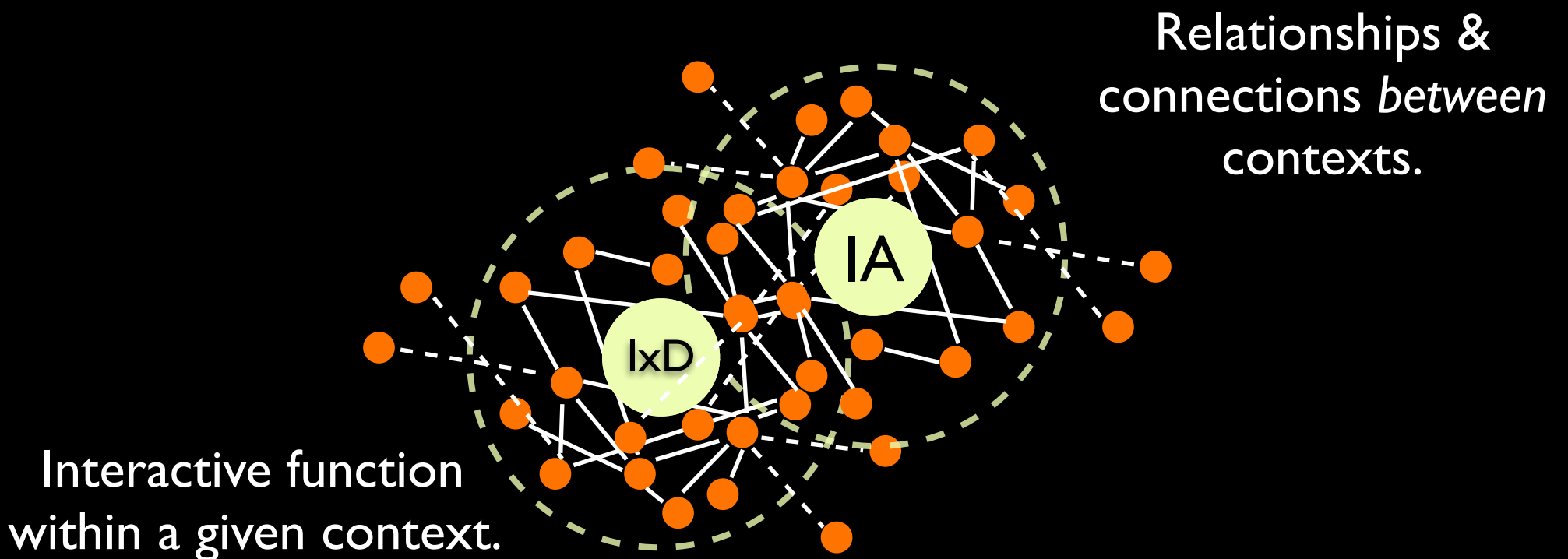
The discipline doesn't take the place of the practice, ideally it amplifies the practice's effectiveness. It just so happens that our community is still evolving and figuring out the "discipline" part of our practice.

And that it's especially challenging for us because of the incredible pace of conversations now.

>> Because when you're working in a teapot,
>> it's hard to build something on a glacier.

Professional organizations everywhere are having to learn how to do this, how to bridge these worlds.

Relationship to Interaction Design



These are “Centers of Concern” for the Practices
(Not Silos & Not Limits on People!)

94

I will point out one other UX practice in particular, and that’s “interaction design.”

It’s evolving too, and we have a great deal of overlap in our communities. It’s puzzling to figure out how these relate to one another. But let me offer a suggestion ...

>> In my own head, the distinction between our centers of concern seems to be that Interaction Design is chiefly about how an object or interface or whatever functions within a given context. Or, to use our architecture analogy, within a given room.

>> Whereas IA’s center of concern is how best to shape the connections between these contexts, using links, categories, and rules of access. Again, in terms of a building which types of rooms the building should have and how they connect to one another.

>> This does NOT mean that practitioners, as individuals, aren’t allowed to discuss or be a part of both concerns ... I’m only describing the THING and PRACTICE, not the PEOPLE.

There have been plenty of projects where I’ve done interaction design one day, and IA design the next. I also do a bit of project managing, a bit of usability testing. These activities are roles we move in and out of. Sometimes I spend an hour digging jammed paper out of the photocopier, but that doesn’t mean that Xerox is an IA company.

These overlap heavily in “navigation” design ...



There are some points of design where these two are virtually indistinguishable.

One obvious example is Navigation Design.

Why? Because the architecture depends on how well all the connections are articulated within the current context.

So what do we do about it? We collaborate!

Remember ... less Milkshake,

>> and More Chunky Monkey

Big IA vs Little IA?



96

Another sticking point in our identity conversations circles around this distinction between “Big IA & Little IA”

It was useful for a time, and helped us think about bigger issues and strategy.

But now I fear it’s become a source of misunderstanding.

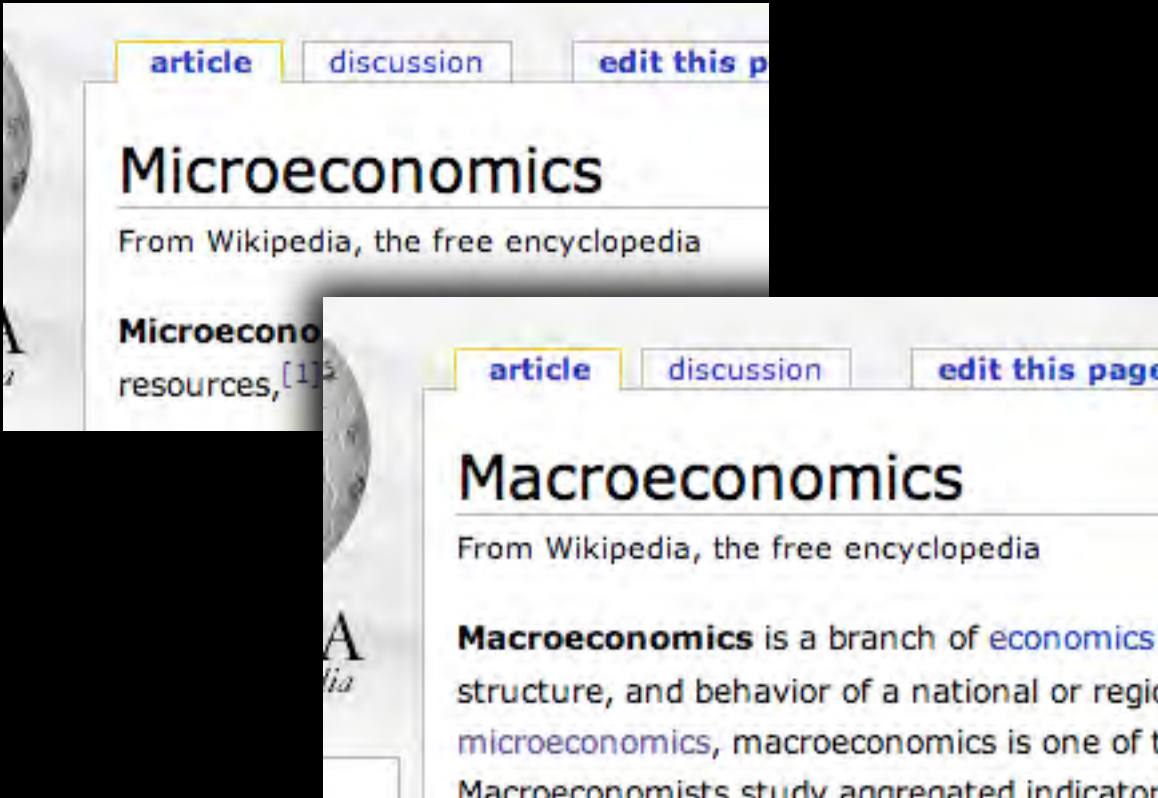
Little IA sounds demeaning, and Big IA is getting entirely too vague -- these days it’s being used for anything from marketing strategy to psychotherapy.

We need some better way to distinguish these extremes in our practice.

image: <http://www.altonweb.com/history/wadlow/p2.html>

original big/little article: http://argus-acia.com/strange_connections/strange004.html

How about Micro IA & Macro IA?



Micro IA Macro

97

Maybe we could look to Micro and Macro economics as model?

>> Macroeconomics simply wouldn't exist without microeconomics, and vice-versa. They're just ends of a spectrum.

and, you can't understand one without understanding the other, but you can certainly specialize in one or the other.

(note, I'm not saying micro IA and macro IA would **directly** correlate to microecon & macroecon ... it's more the abstract concept of how they relate that I'm getting at here)

Economics = a sort of theology of markets. -- emotion! & emergent behaviors

Capitalism needs rules...sports and games as models...architectures

The Web isn't so much a technology anymore as a way of being.



It's is soaking into the pores of our physical lives.

98

As for the Web, we need to stop thinking of it as browsers on personal computers. It's gone way beyond that.

>>

The Web is becoming more a way of life than a discrete technology. Its contexts are made of much more than just pages.

>>

People will only demand more linking, more connection, more Web ...

The Web -- and all its attendant challenges of context and connection -- is soaking into the pores of our physical lives.

wristwatch: <http://www.instagps.com/>

iphone: <http://www.crunchgear.com/2007/12/04/iphone-browser-count-rockets-past-winmo/>

times square: http://www.picturecorrect.com/wallpaper/manhattan/times_square_1024x768.htm

expresspay: foodfacts.info



William Gibson

“One of the things our grandchildren will find quaintest about us is that we distinguish the digital from the real.”

The author William Gibson said a lot of great things in a Rolling Stone interview recently.

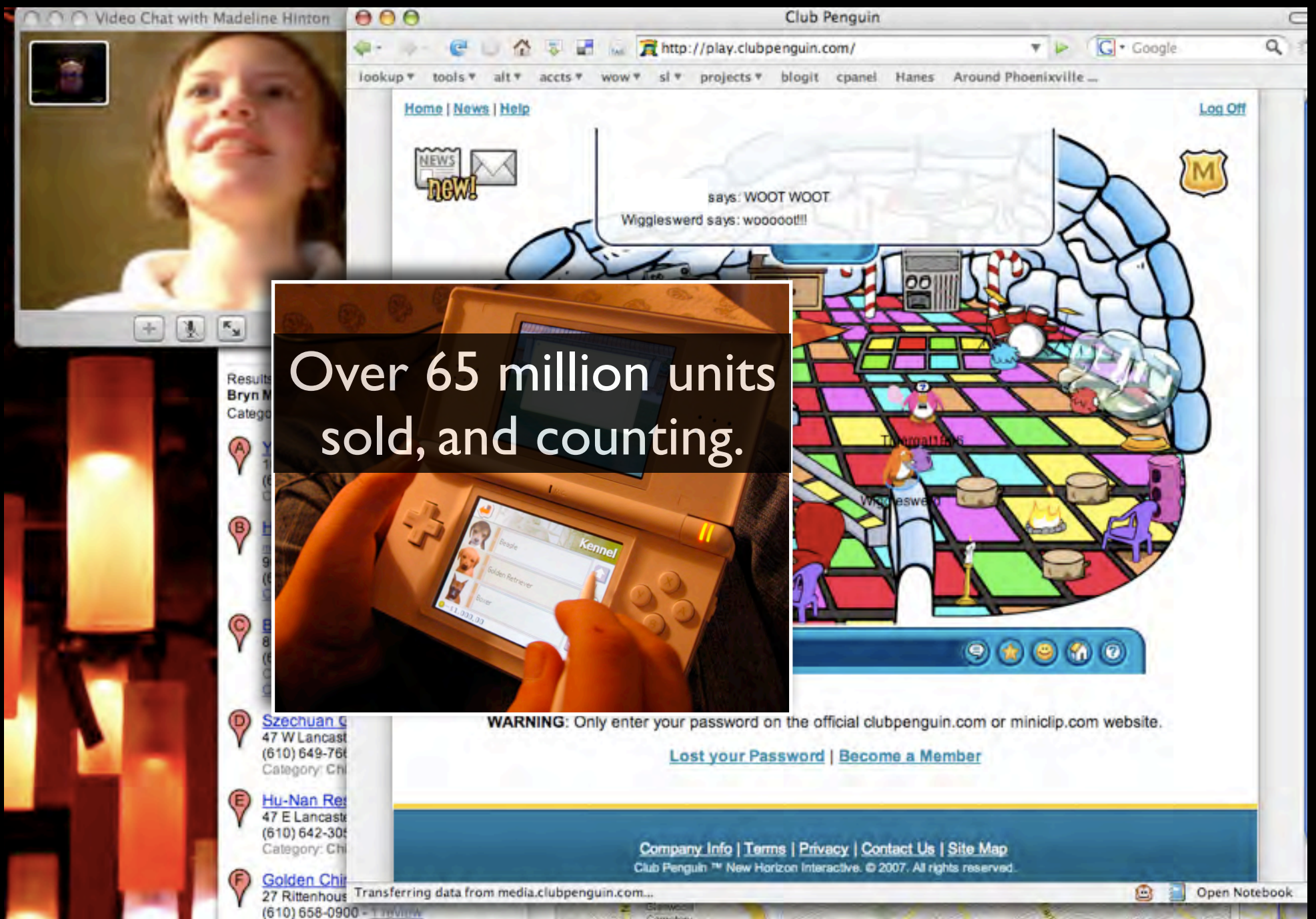
>>

"One of the things our grandchildren will find quaintest about us is that we distinguish the digital from the real.

Just imagine the challenges we have ahead of us ...

"One of the things our grandchildren will find quaintest about us is that we distinguish the digital from the real, the virtual from the real. In the future, that will become literally impossible. The distinction between cyberspace and that which isn't cyberspace is going to be unimaginable. When I wrote Neuromancer in 1984, cyberspace already existed for some people, but they didn't spend all their time there. So cyberspace was there, and we were here. Now cyberspace is here for a lot of us, and there has become any state of relative nonconnectivity. There is where they don't have Wi-Fi." - William Gibson (http://www.rollingstone.com/politics/story/17227831/william_gibson_the_rolling_stone_40th_anniversary_interview/print)

http://commons.wikimedia.org/wiki/Image:William_Gibson_by_FredArmitage.jpg



This is my daughter, Madeline, who is now twelve.

Due to the complications of modern life, she and I live several states apart from one another. Between the in-person visits we have when I travel to see her, we have regular video chats on the internet ... we hang out and play, or I help her with homework, or whatever.

>>

Sometimes we hang out on something called Club Penguin, where kids chat, play games together and even have their own igloos -- like this one here -- that they can decorate with all kinds of fun stuff and invite friends over.

>> Madeline also has a Nintendo DS. It's a game device, but it's also wireless ... she can play with others on the internet using just about any wifi connection. She's in a virtual environment in the game itself, a networked and shared environment using the game as a conduit, and the physical environment she happens to be in, typically with friends who are doing the same thing.

>> There are 65 million of them out in the world, and more being sold every day.

This is commonplace -- everyone in her generation takes it for granted. The video chatting, the virtual space ... all of it.

An expanding challenge ...

Map



Territory



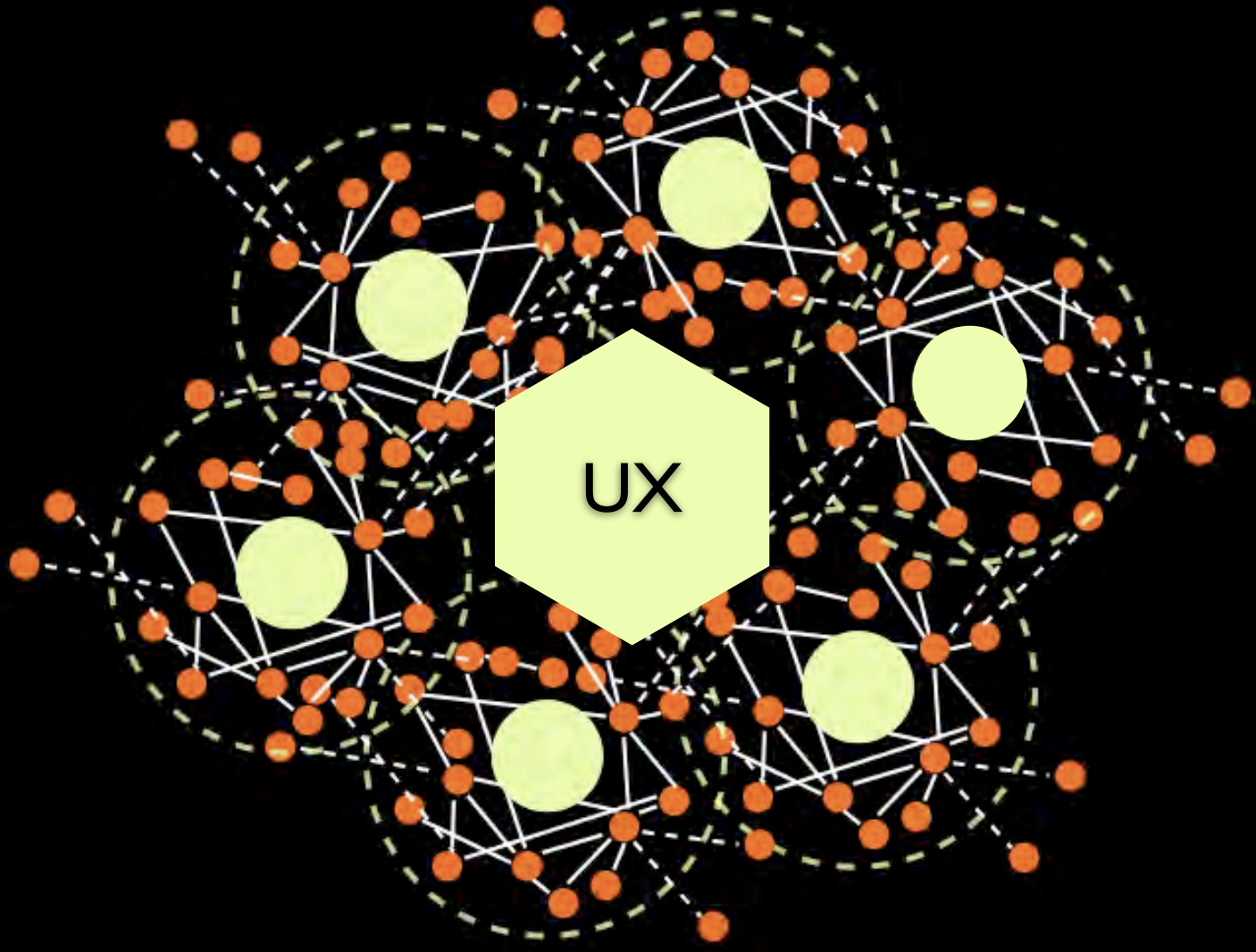
Integrating the infospace layer with
the world of bricks & atoms.

101

Again, we're seeing this merger of map and territory ... adding a Web-like layer spreading to everything we do.

The practice of IA is well-suited for understanding how that layer behaves, and best practices for integrating it with the world of bricks and atoms.

This practice has an amazing role to play in work of user experience!



We're just getting started.

So fear not, IA is far from dead.

We're just getting started.