

Computer Science

The Digital Future

Our Panel



Our Talk

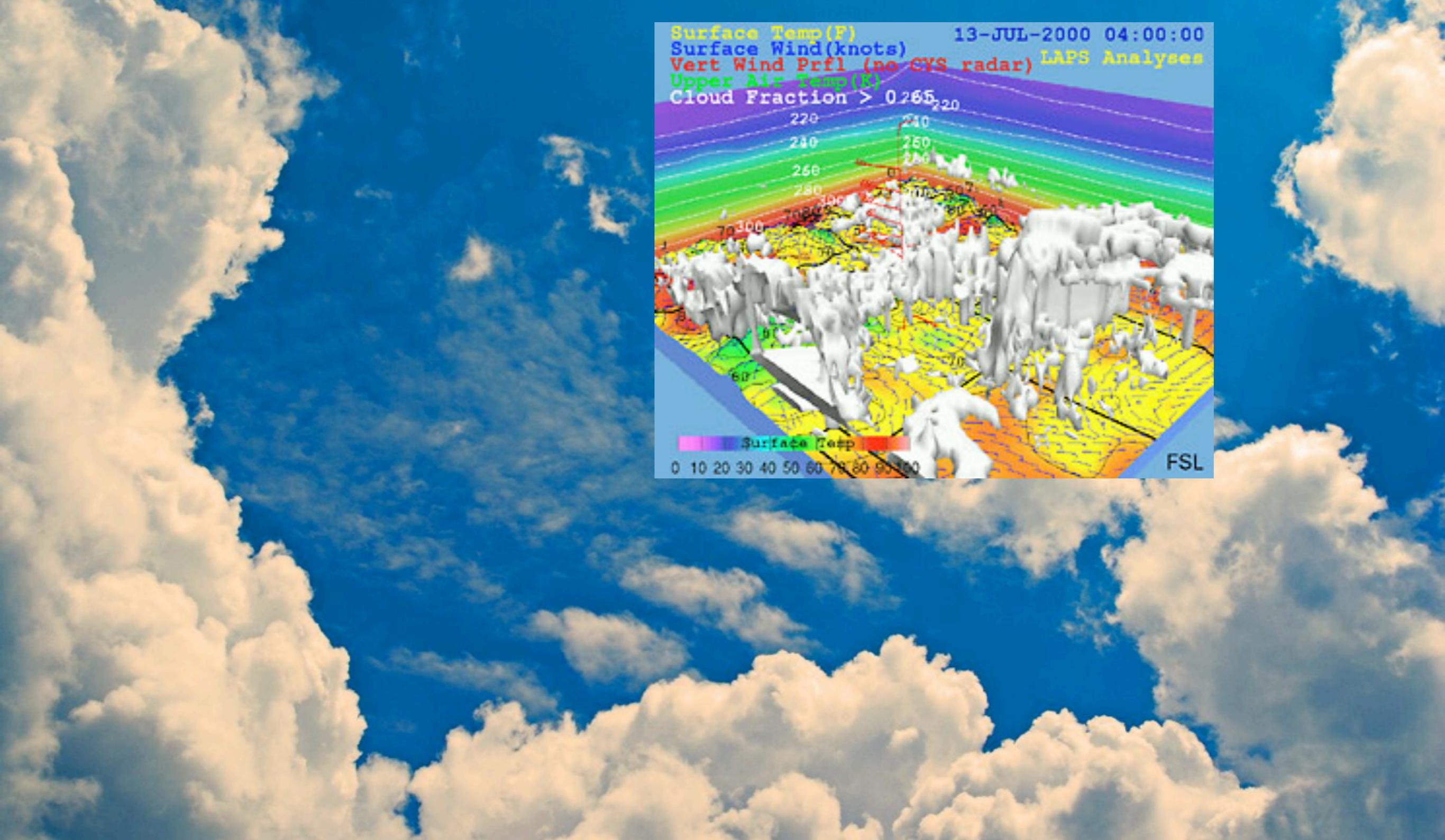
- Technology day to day
- Computer Science at University
 - Robots(everywhere)
 - How we work
- Bringing ideas to your living room

Michael Wirth

Professor • Image Processing

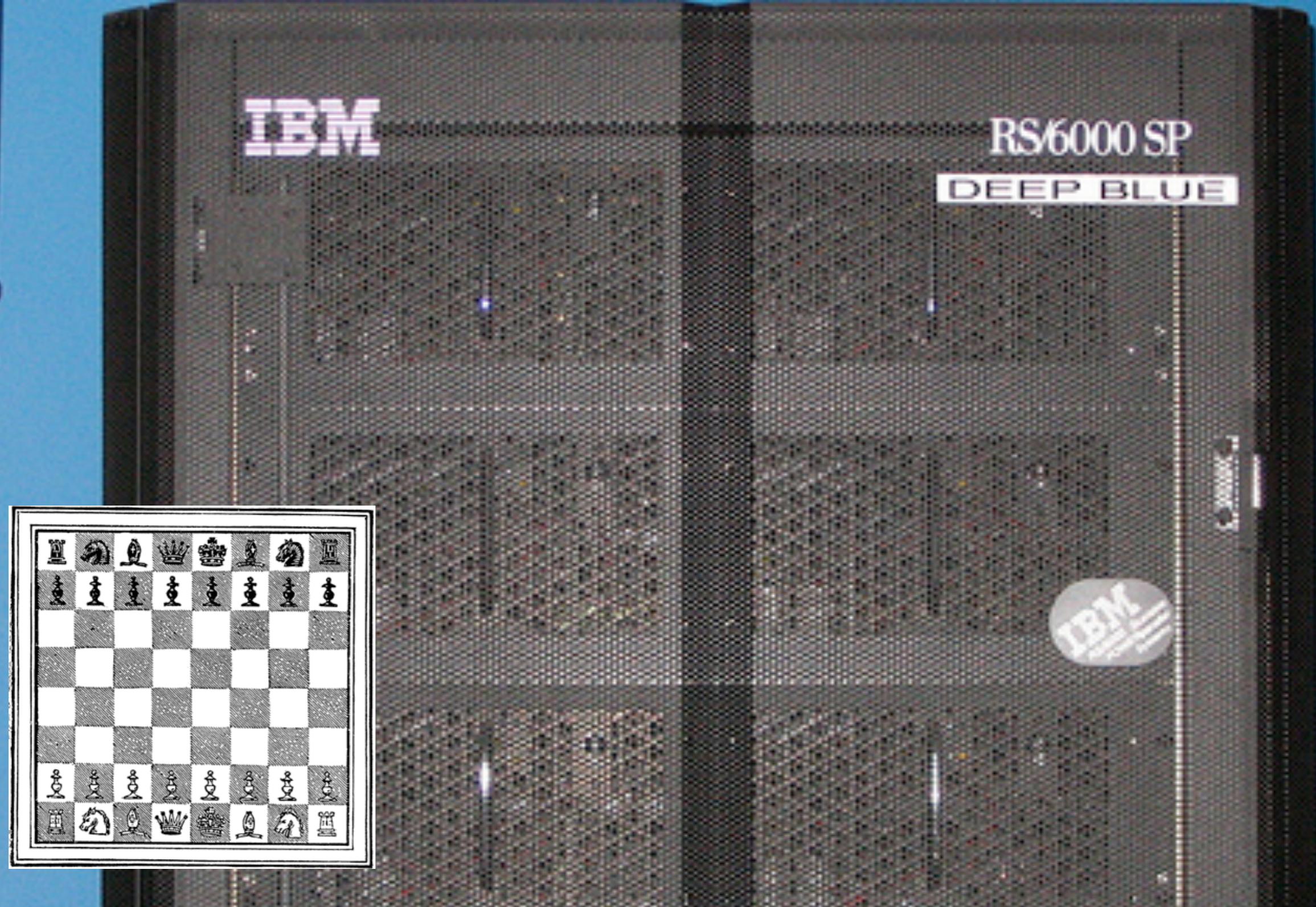


What is computing?



Babylonians looked at cloud patterns to predict weather

Now we use computers which do 768 billion calculations per second!



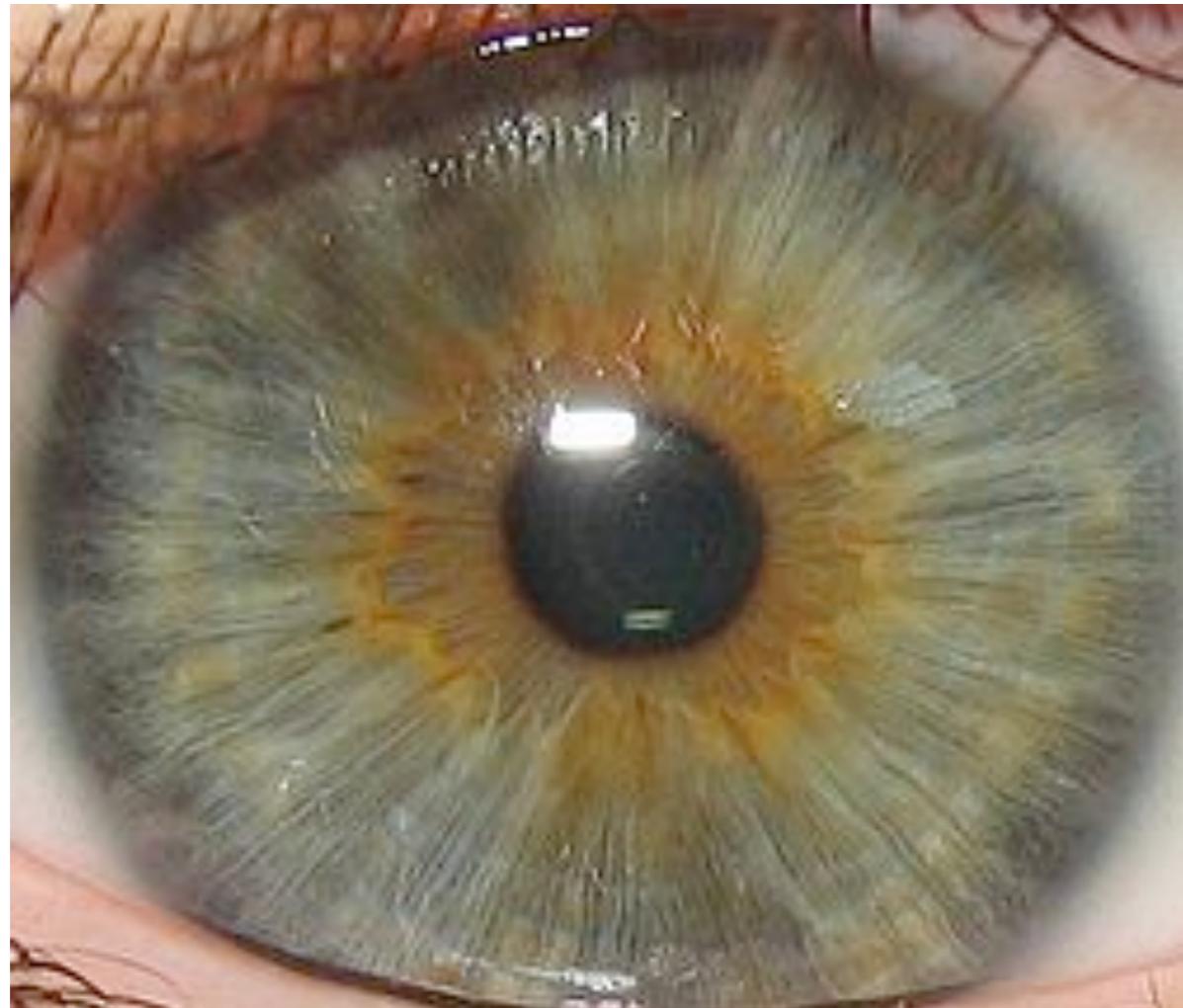
In 1997 IBMs Deeper Blue
beat Garry Kasparov

Kasparov: 3 moves per second.
Deeper Blue: 200 million.



Cars have 100s of “micro” computers to control engines and air bags.

35 million lines long.
= 1038 copies of Harry Potter
and the Deathly Hallows



Biometric recognition for security



Things that make us unique:
fingerprints, face, hand, iris,
DNA, veins



Quality inspection of pizzas

Is the pepperoni properly distributed? Enough cheese?



Automated transport

Vancouver skytrain.
Fully automated, driverless
trains.



Forest fire detection



Automated cameras detect forest fires in remote places.



MASSIVE:

Multiple Agent Simulation
System in Virtual Environment

Mummy 3
Artificial Life.



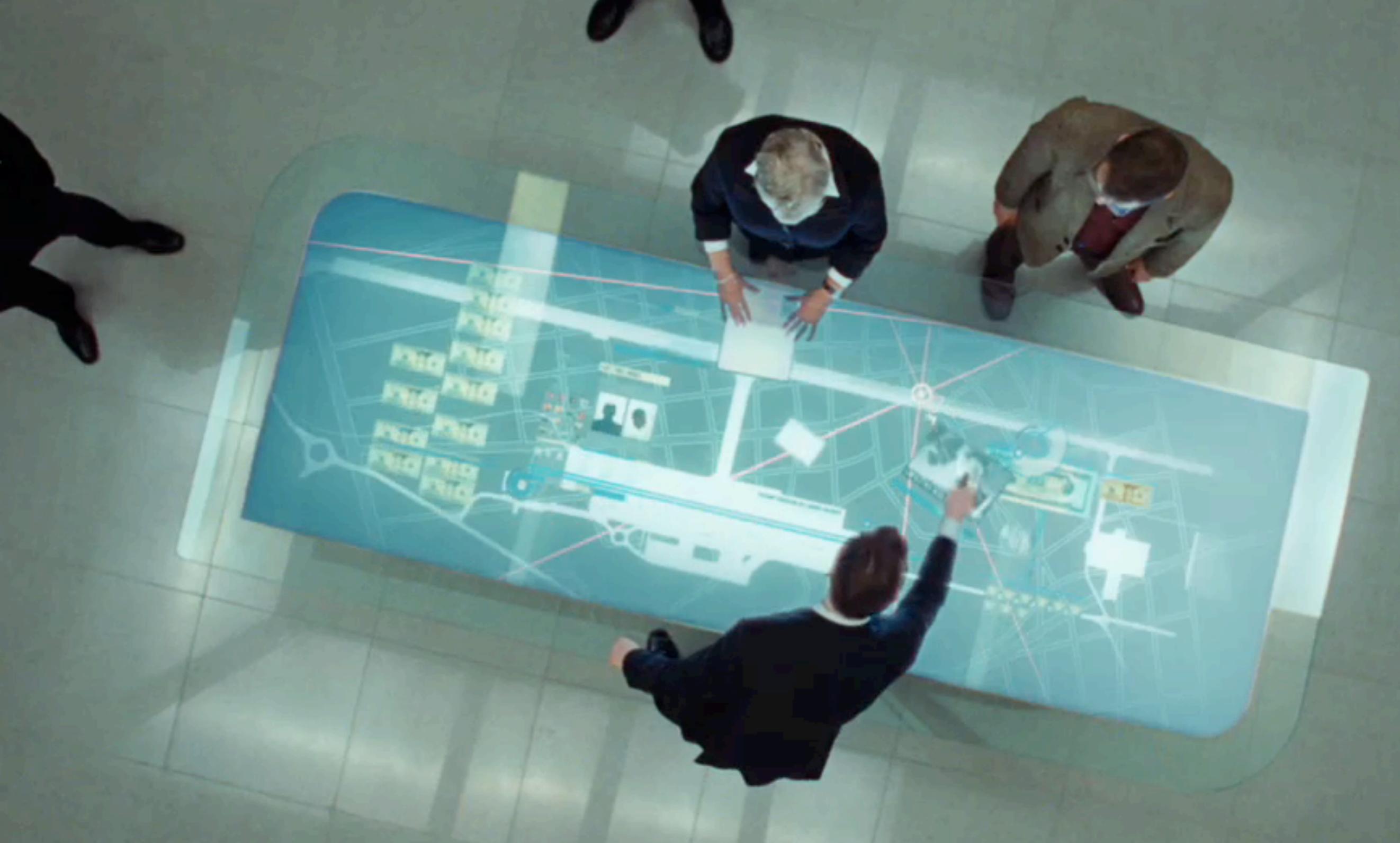
Interactive entertainment

Wii, Xbox 360, Playstation 3
2008 \$21.3 billion industry
19% increase over 2007



Everyday applications

Automated number plate
recognition on the 407



User interfaces

Designing how humans interact
with information.
-007 Quantum of Solace



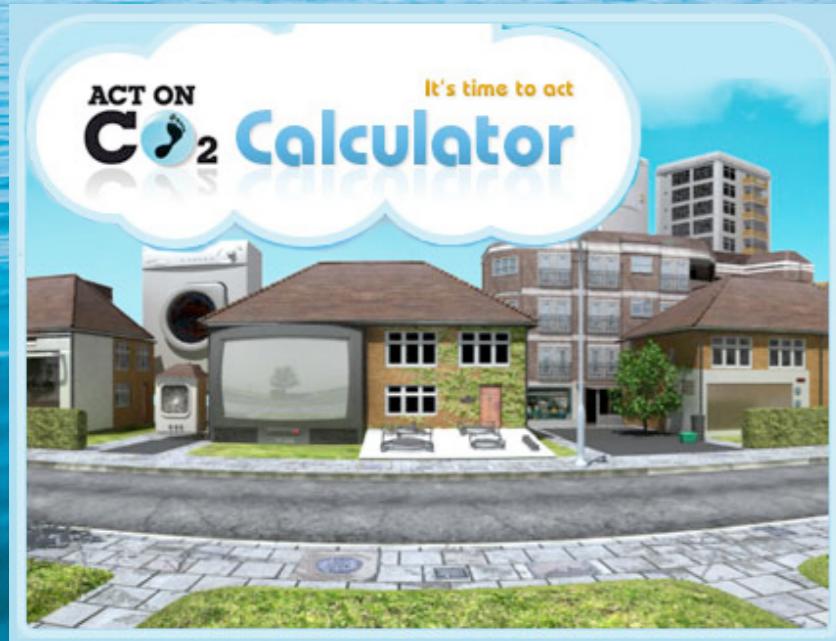
Robots

Industrial robots, telerobots,
unmanned aerial vehicles



Exploring planets

Mars Phoenix lander touches down on Mars.



Being green

Calculating carbon footprints,
running power plants, simulating
climate change



The future?

Financial cards with interfaces
and fingerprint recognition?

We all use software to
solve problems everyday.

Melanie Veltman

Masters Student • Robot Vision



Vacuums



http://store.irobot.com/product/index.jsp?productId=2475131&cp=2804605&ab=CMS_StoreHome_Gifts_DirtDog_102308

http://store.irobot.com/product/index.jsp?productId=2580729&cp=2804605&ab=CMS_StoreHome_Gifts_Roomba410_102308

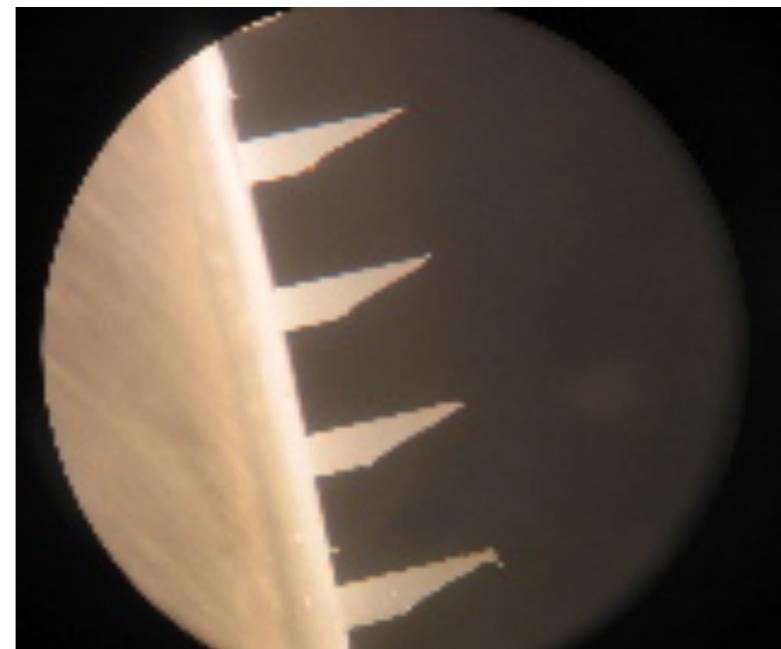
Warrior



<http://bdml.stanford.edu/twiki/bin/view/Main/StickyBot>

Stickybot

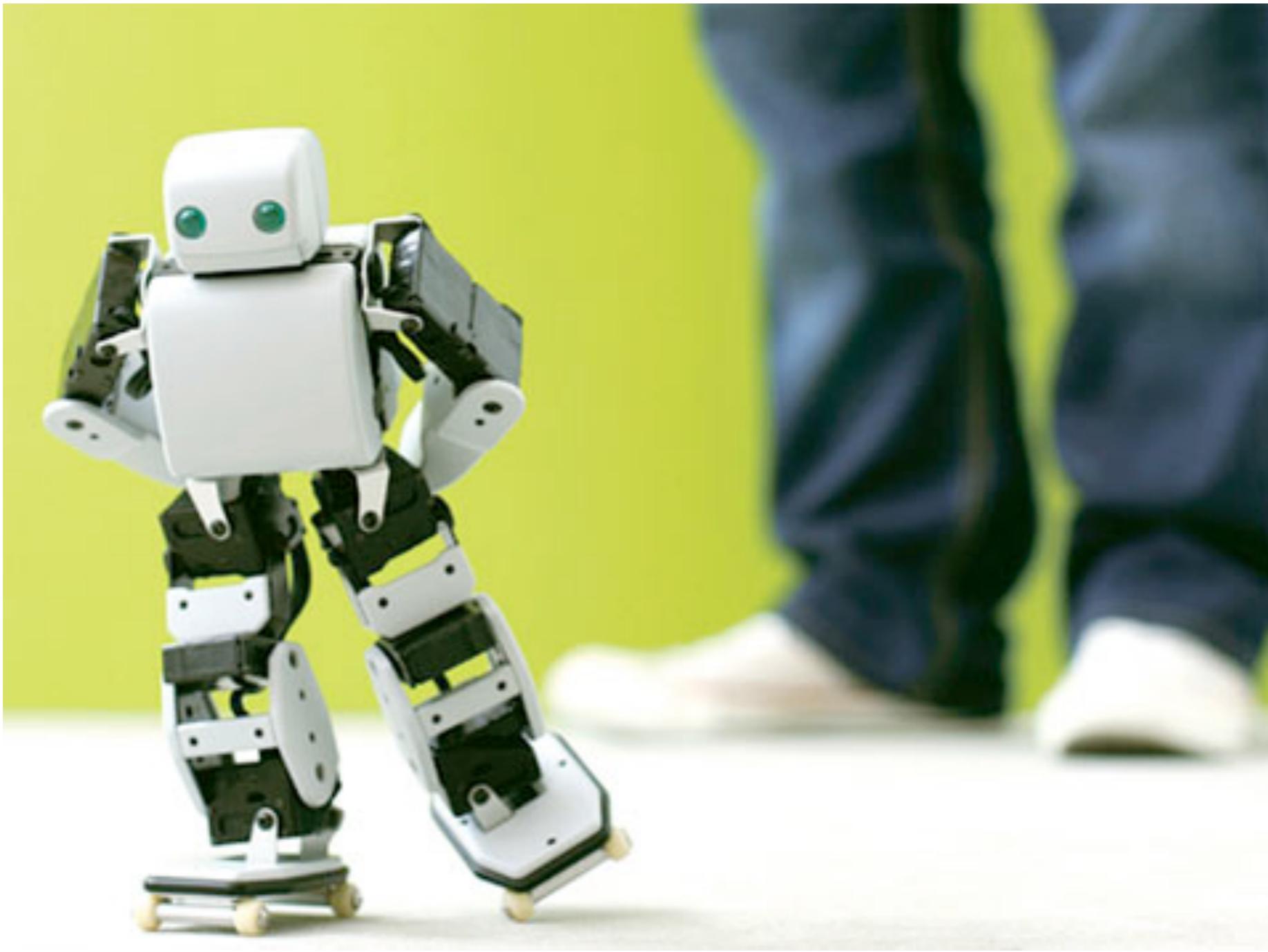
A Wall Climbing Robot



<http://www.irobot.com/sp.cfm?pageid=150>

PLEN

A Humanoid Robot



http://allezoup.files.wordpress.com/2008/03/plen_robot_skating.jpg

Nao

Playing Soccer at RoboCup



flickr.com/photos/northern_bites/2739708344/

Autonomous Mobile Robots

- Perception
- Cognition
- Action

Honda Asimo



http://blogs.thecarconnection.com/blogs/marty_blog/wp-content/uploads/2008/05/asimo_conducts_dso-sm.jpg

Asimo

Conducting the Detroit Symphony Orchestra



<http://world.honda.com/news/2007/c071211Enabling-Multiple-ASIMO-to-Work/photo/pages/02.html>

Julia Baldwin

Masters Student • Human Computer Interaction



Interruptions

Snapshots

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"Like to read, huh? Me, too. I'm a big reader.
I just finished a book by Brown. You know
Dan Brown? Great writer..."

Productivity



http://a.abcnews.com/images/Business/is_email2_071005_mn.jpg

Clippy

It looks like you're writing a letter.

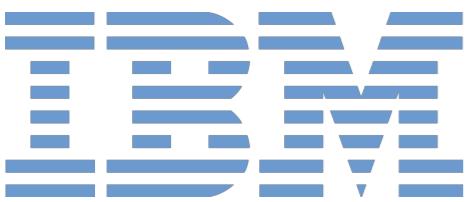
Would you like help?

- Get help with writing the letter
- Just type the letter without help
- Don't show me this tip again





<http://www.concurringopinions.com/archives/images/clippy.jpg>



Deirdre Athaide • Jennifer Schachter

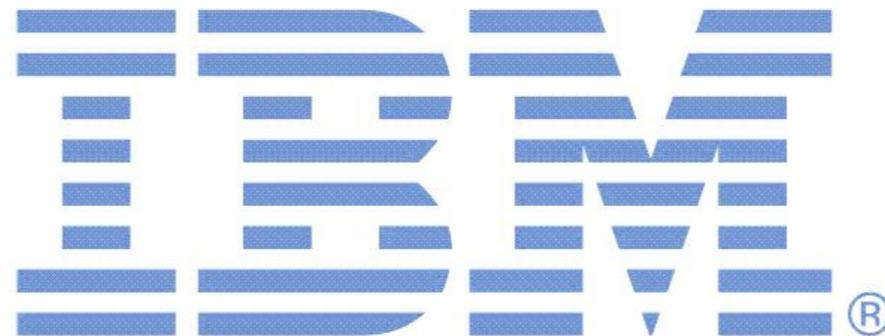
IBM • Sensor and Actuator Solutions Manager • WebSphere Commerce Development



Industry!



Microsoft[®]

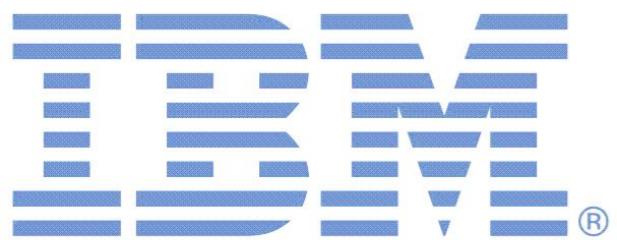


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Toronto Software Lab



Who shops online?

The North Face website screenshot showing the Women's Jackets & Vests section.

Header navigation: Sign In | My Account | Wish List | Events Calendar | Find a Store | Subscribe | Search | GO

Main menu: MEN'S → WOMEN'S KIDS' FOOTWEAR EQUIPMENT | SPORTS TEAM RD&D EXPLORE | CART: 0 Items CHECKOUT

WOMEN'S » JACKETS & VESTS

WOMEN'S

- Jackets & Vests
- Shirts & Sweaters
- Pants & Shorts
- Baselayers
- Accessories
- Footwear
- Series & Collections

NARROW ITEMS BY

[Clear All](#)

Category [All Categories](#)

- Waterproof
- Snowsports

155 RESULTS | PREV 1 .. 4 5 6 .. 18 NEXT | VIEW BY 9 | VIEW BY 36 | Sort By Price Low to High

W REDPOINT HYBRID JACKET

Color options: black, grey, blue

W REVERSIBLE CHAMELEON JACKET

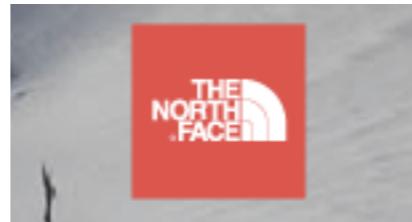
Color options: black, white, green, blue

W FOIL THERMAL JACKET

Color options: white, black

Building an online store

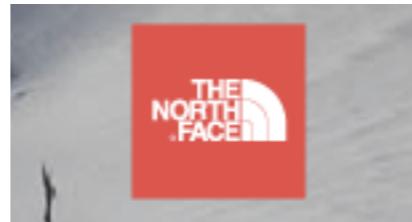
We want to
sell our
coats online



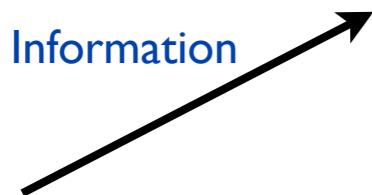
Building an online store

Information →

We want to
sell our
coats online



Building an online store

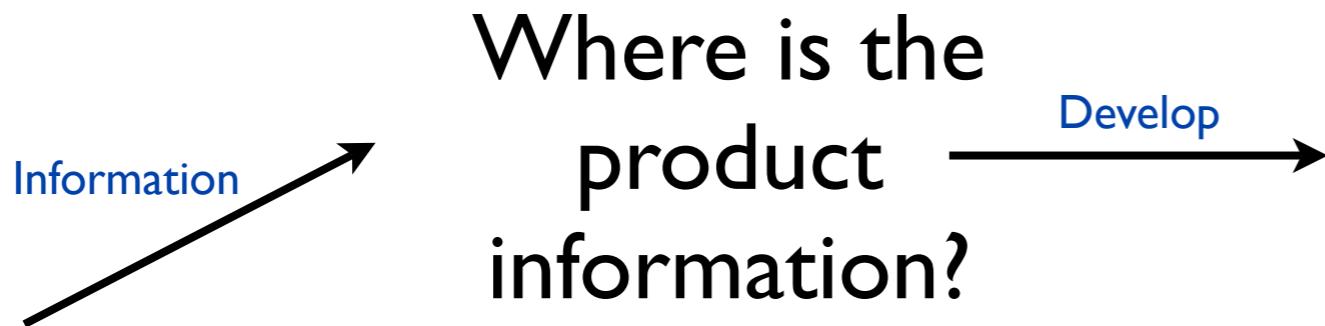


Where is the
product
information?

We want to
sell our
coats online



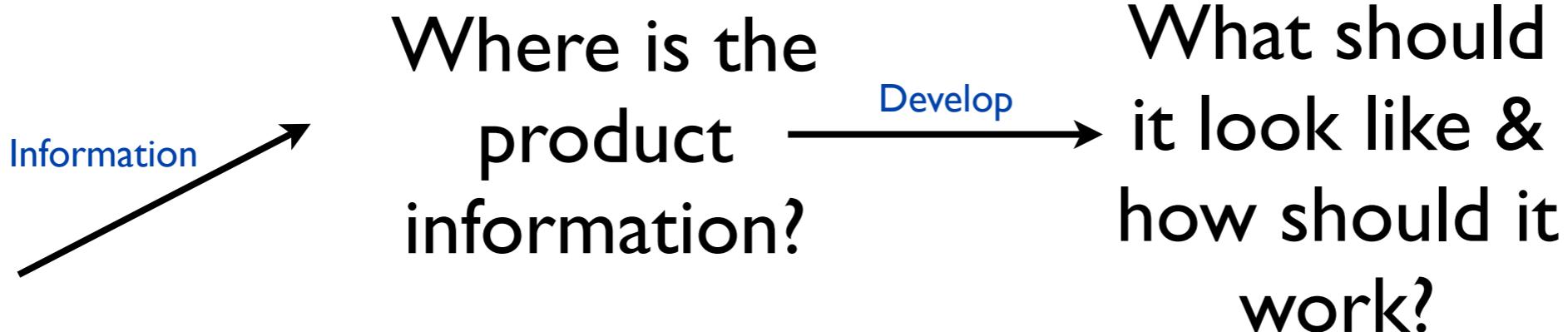
Building an online store



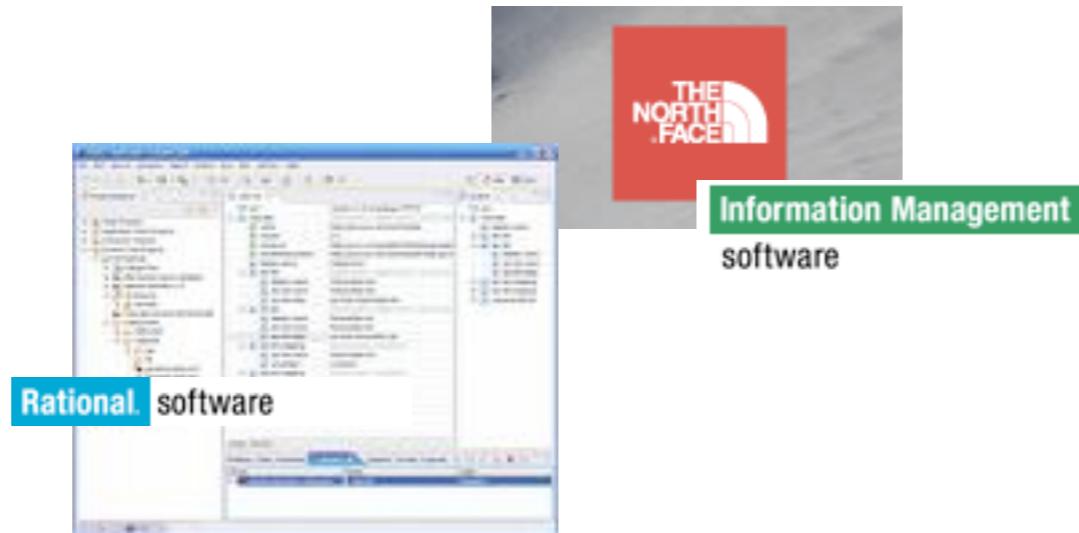
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sell our
coats online



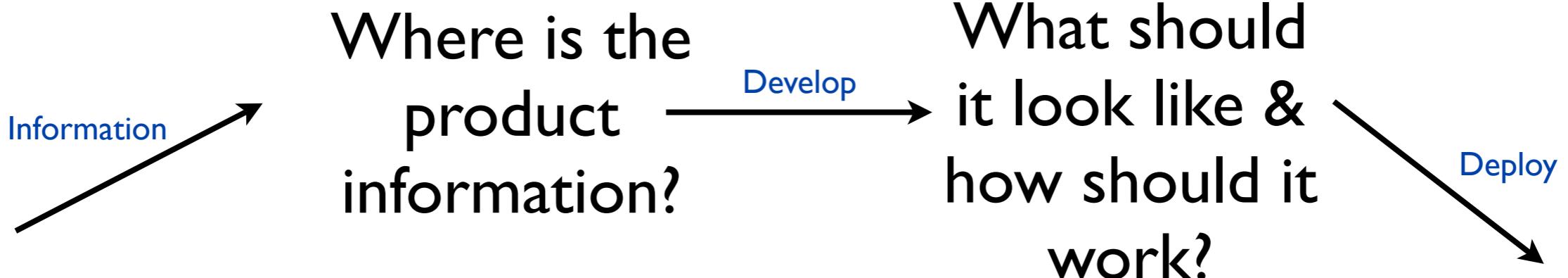
Building an online store



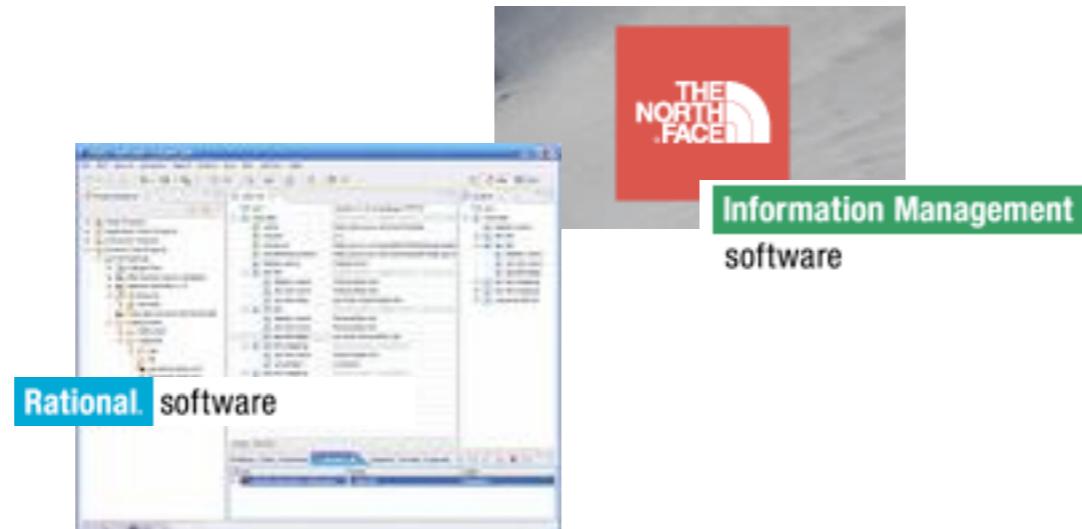
We want to sell our coats online



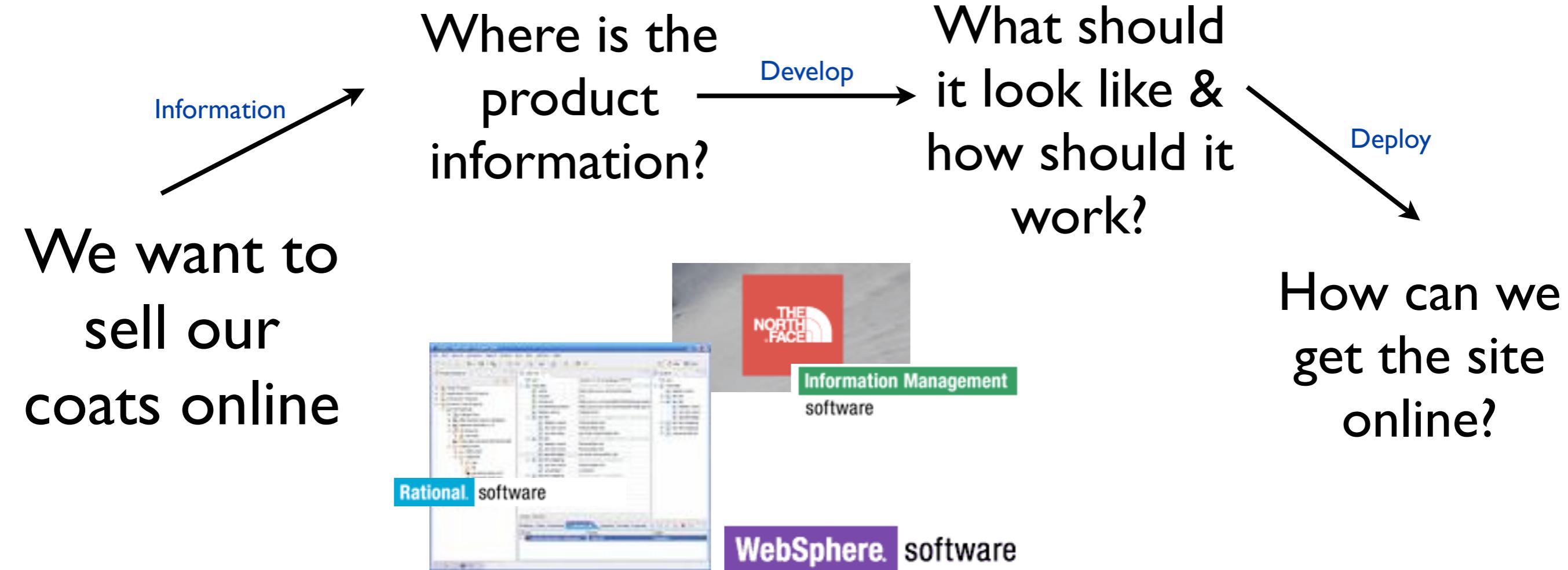
Building an online store



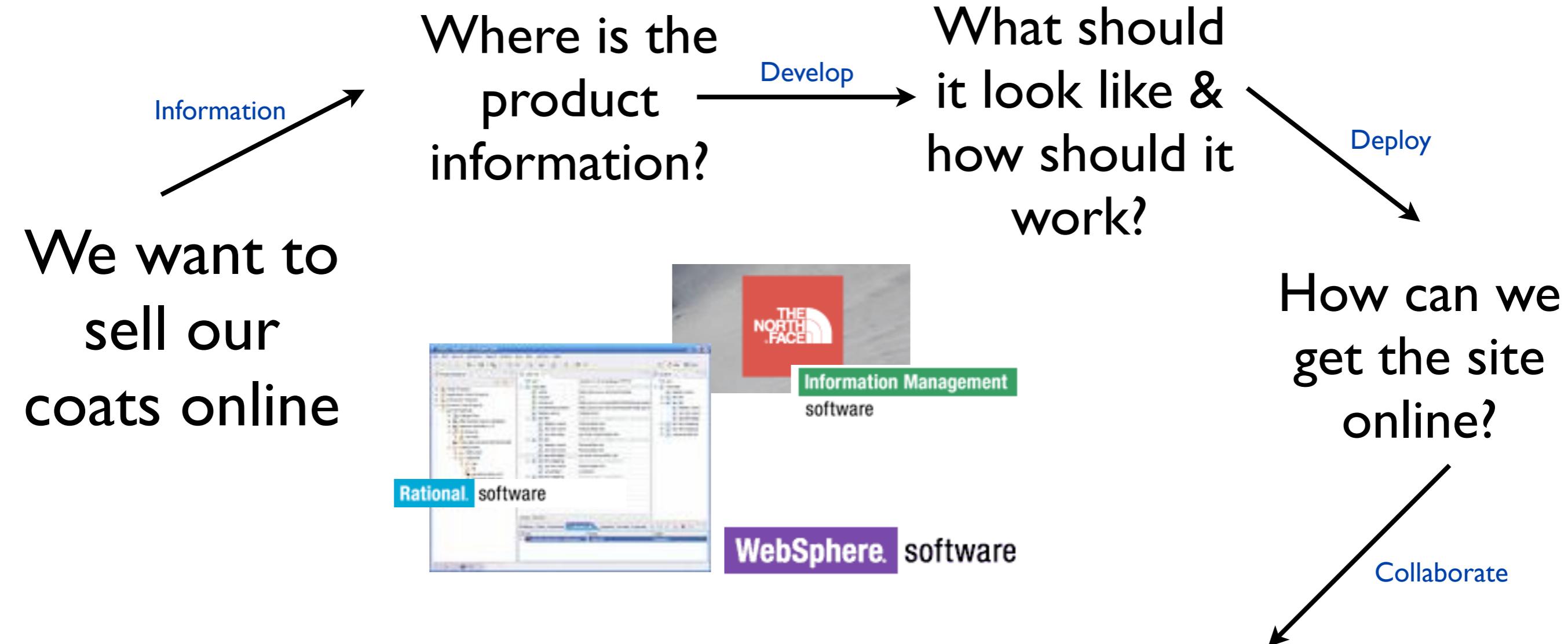
We want to sell our coats online



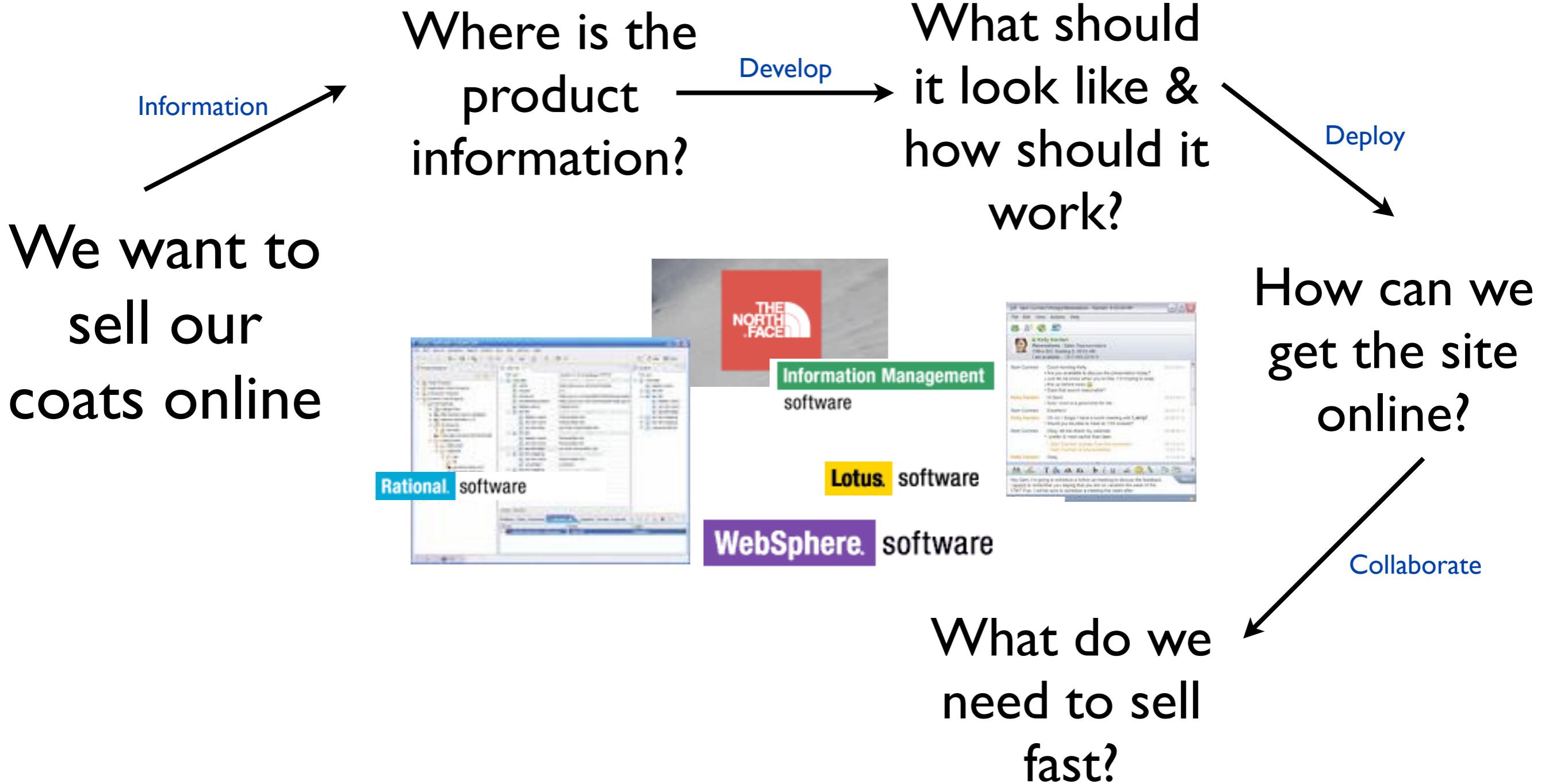
Building an online store



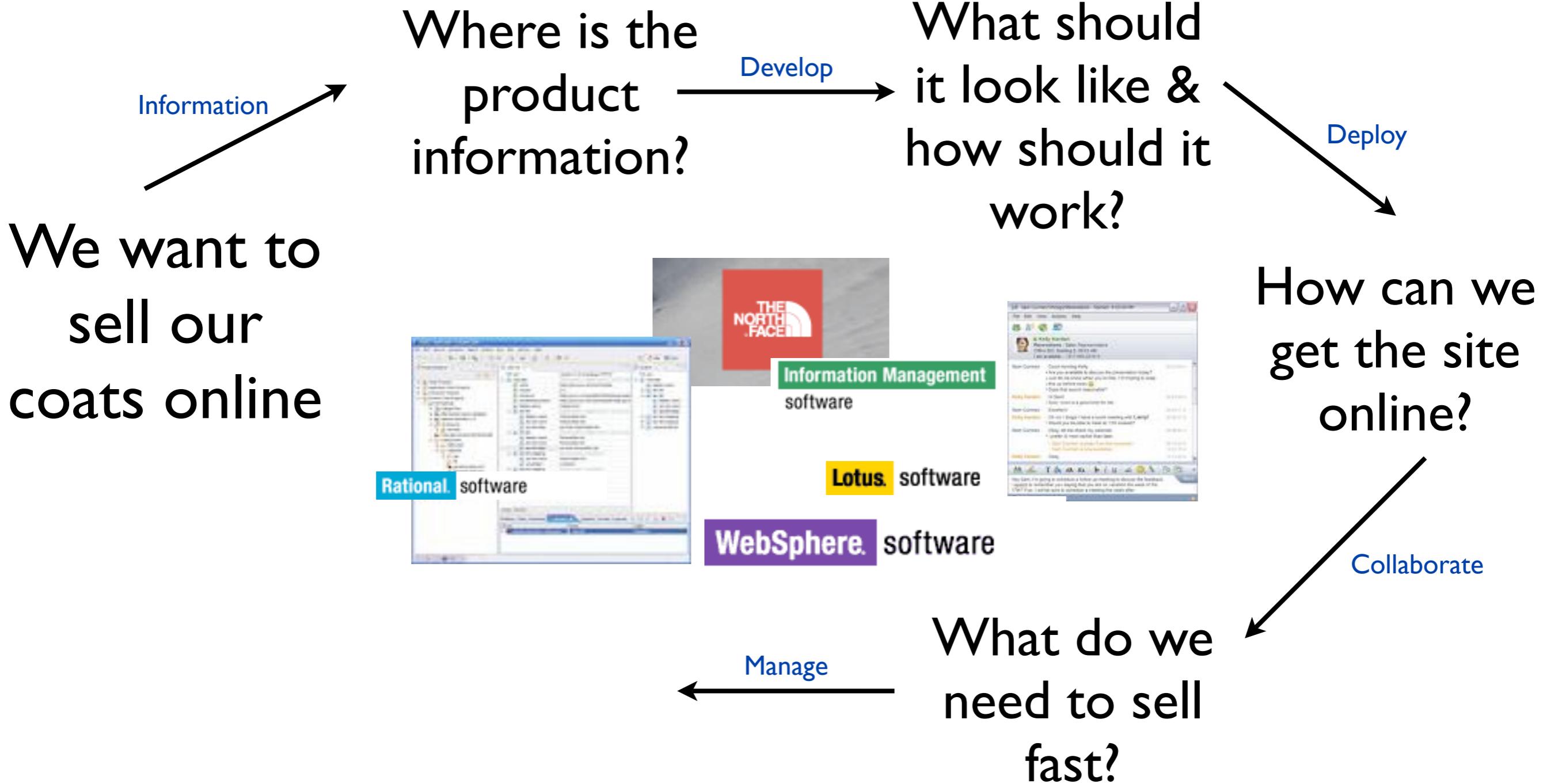
Building an online store



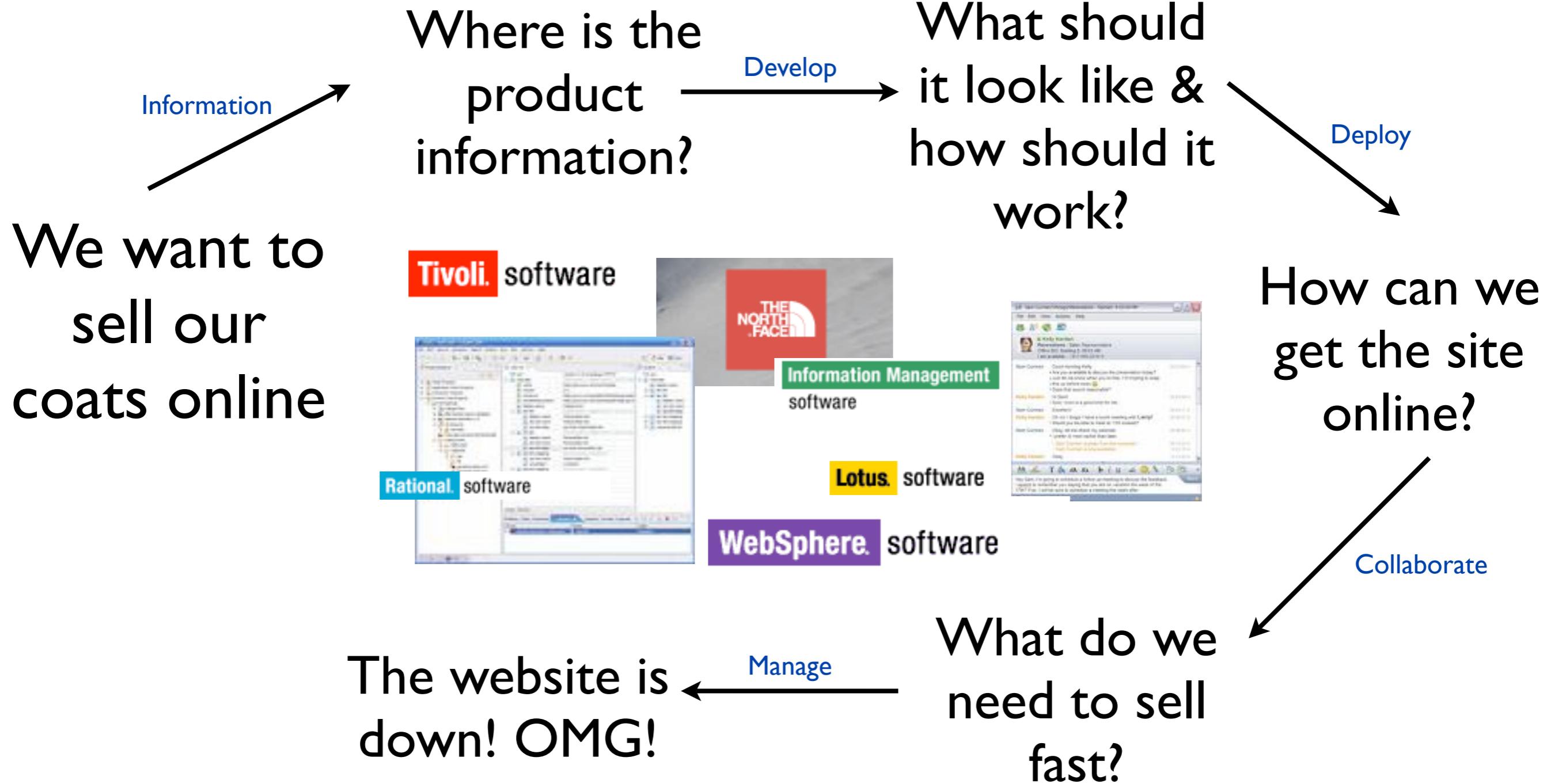
Building an online store



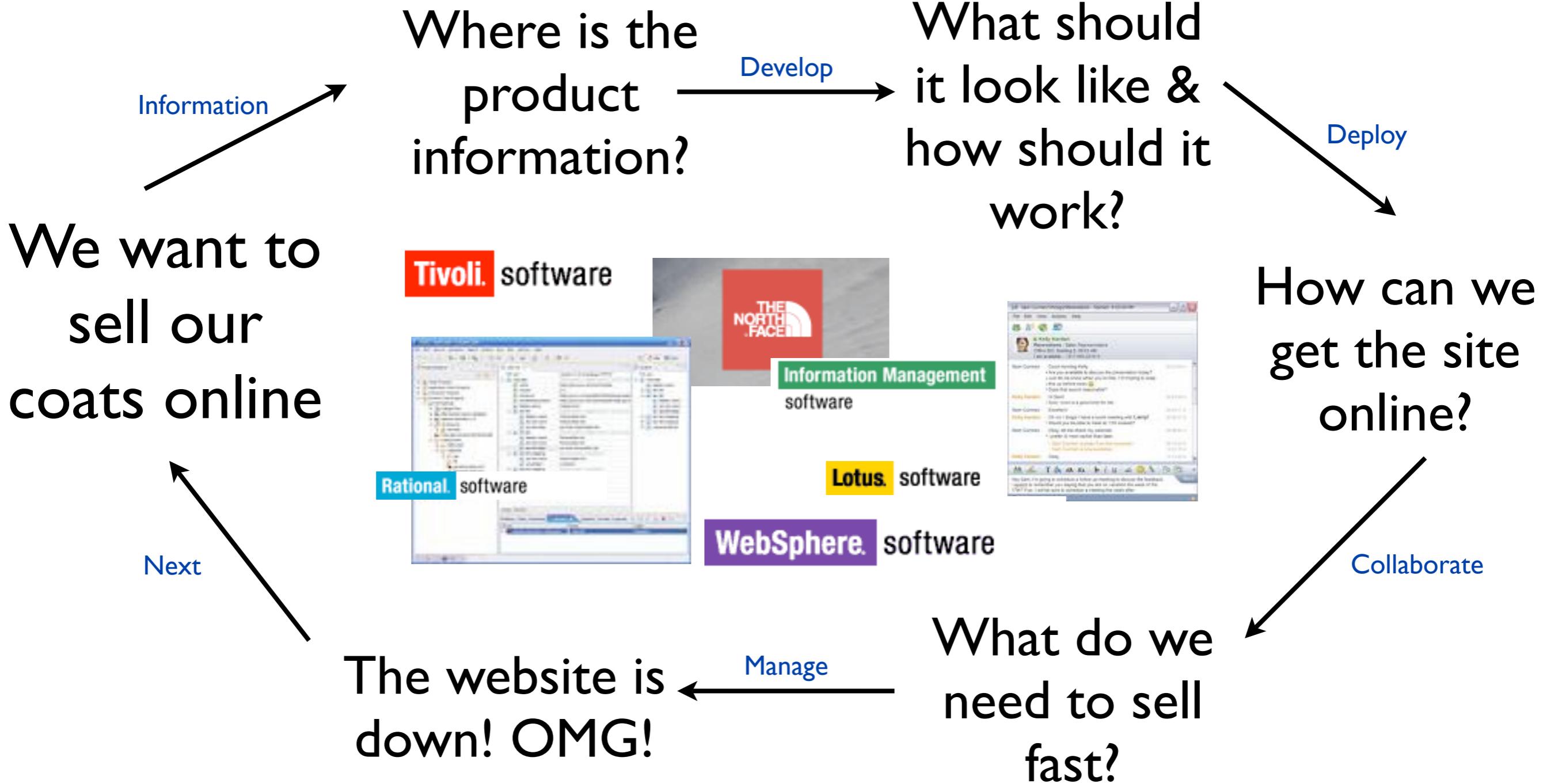
Building an online store



Building an online store



Building an online store



People we work with



Cale

Media Designer



Patricia

Technical Sales



Sacha

Consultant



Erin Writer

IBM is *ginormous*...386,558 IBMers Worldwide!



Teamwork and Collaboration

w3 Media Library

Browse media

To filter the results, enter tags  into the box below and then click Add. This will show you only the media that has those tags associated with it. You can also search by title or description.

Filter media

Media

Watch videos: most recent

Sort videos by:

- Most Viewed, E-mailed, or Top Rated
- Submitter's Location, Division/BU, or Name
- Video Title

Watch videos

Popular

Most recent

by B/U/City

by Title

ate videos

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rizes

The Winners

Related links:

- This week
- Last week
- Two weeks
- Three weeks
- Four weeks

YouTube

W3 Video Contest

Watch videos: most recent

Sort videos by:

Most Viewed, E-mailed, or Top Rated

Submitter's Location, Division/BU, or Name

Video Title

Watch videos

Popular

Most recent

by B/U/City

by Title

ate videos

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bout the contest

rizes

The Winners

Related links:

- This week
- Last week
- Two weeks
- Three weeks
- Four weeks

INNOVATION FOR BETTERMENT

Azees D Baig
2/12 14:22
* 12 * by 121 people
Viewed 519 times

SUCCESS

Sachin K Jha
2/10 17:59
* 10 * by 90 people
Viewed 220 times

INNOVATE ANYWHERE ANYTIME

Continuity that matters

Martin Recktenwald
2/10 02:56
* 3 * by 94 people
Viewed 264 times

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Get Started Learn More Watch demo

Please join my FreeJam. Thanks! [started: 9:23:42 AM]

File Edit View Tools Help

Participants (13)

L M (Luis) Suarez Rodriguez Knowledge Manager, Community Builder and Social Computing Evangelist +34-928-148260 / El Tablero de Maspalomas, Las Palmas, ES / 3:27 PM

Working @ Home +34 928 148260 @ Home Office (Sometime 7.5.1)

... pazzagmp@us.ibm.com - include me in your invitation if available

Melissa Marroso I'd be happy to Luis - a few leading questions/suggestions/topics would be good reminders to work in it

Carol Eberhardt hello, I am leading a Knowledge Cafe call, sorry

Luis Suarez Yes, that is what I thought, Lynn, from the list of folks over here, how many are ThinkPace Catalysts or Master Catalysts?

willmorr@us.ibm.com would it be worth taking a look at Quickr - by July there will probably be community support

Luis Suarez Thanks, Carol, for dropping by.

Lynn K. Busby we need to work to make KCBlue an example of BP - tie in ThinkPlace and communities

Carol Eberhardt must drop thanks

Matthew Simpson Matthe... or Connections

... Carol Eberhardt left the chat. ...

Luis Suarez Thanks, Melissa, we will do so, no problem.

9:26:22 AM 9:26:23 AM 9:26:36 AM 9:26:41 AM 9:26:44 AM 9:26:50 AM 9:26:51 AM 9:26:52 AM 9:26:59 AM 9:27:05 AM

Send

BLUEPEDIA

WIKIPEDIA The Free Encyclopedia

Articles Inventory User Solutions

Featured article Managing complex content development

In Second Life



High School Courses



<http://blue.utb.edu/usslabs/MS%20SEMINARS/workshopweb/images/students-at-computers.jpg>

High School Courses

Interested in making
Software?

Interested in what goes
on inside your computer?

Consider ICS 20

- Programming
- Software use and manipulation
- Logic

Consider ICE 20

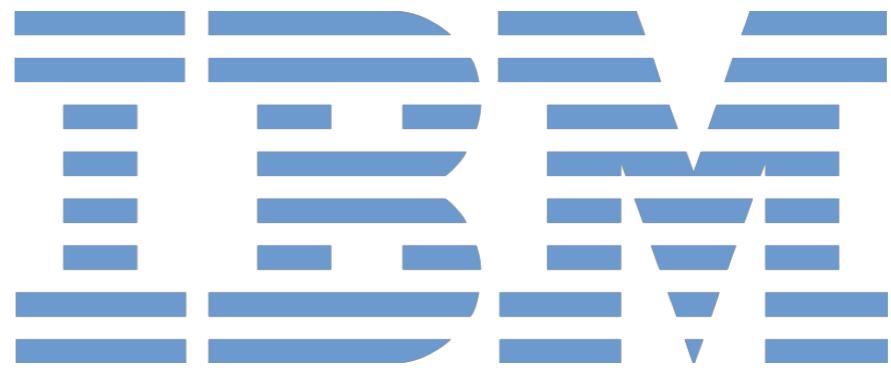
- Hardware manipulation
- HTML
- Number representation

Technology is everywhere!

These courses will provide you insight into the technology around you

We are...

- Julia Baldwin
(liaison@cis.uoguelph.ca)
- Michael Wirth
(mwirth@uoguelph.ca)
- CISters (www.cisters.ca)
- Computing and Information Science, University of Guelph
(www.cis.uoguelph.ca)
- Jennifer Schachter
- Deirdre Athaide
- outreach@ca.ibm.com
- IBM Canada (ibm.ca)



Questions

