

INFLECTION POINTS

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February 4, 2010

WHAT WILL THE
NEXT HUNDRED
YEARS BRING
TO MANKIND?

H.G. WELLS' THINGS TO COME

An ALEXANDER KORDA
production

with RAYMOND MASSEY · RALPH RICHARDSON
SIR CEDRIC HARDWICKE · PEARL ARGYLE
MARGARETTA SCOTT and a cast of 20,000

Directed by WILLIAM CAMERON MENZIES
A London Film · Released thru United Artists

What's Our Vision of The Future?





“Legacy Futures”

MATRIX



ATTENTION

REMOTE CONTROLLED
EQUIPMENT MAY BE
IN OPERATION

MOVING EQUIPMENT
MAY BE UNOCCUPIED

CSX TRANSPORTATION, INC.



NO TRESPASSING

Is there, perhaps, a more *structured* way to do this?

Is there, perhaps, a more *structured* way to do this?

Yep. “Strategic Foresight.”

Scenario Planning

competition

OUT OF CONTROL

Taxes and Allies

short-term
thinking

long-term
thinking

**EAT YOUR
VEGETABLES**

**Djinni
in a Bottle**

collaboration



Scenario Planning...

Tells stories about the future

Forces divergent thinking

Allows straightforward comparison of outcomes

Creates memorable examples

But...

Tends to over-simplify

Becomes obsolete quickly

Tends towards the “cinematic”

Foresight Mapping

HOW TO USE THE 2009 MAP OF THE DECADE

The next decade challenges us with a collapsing economy, a landscape-clearing shift in the world's climate, a rapid integration of the Global South into a planetary economy, and a new capacity for biological engineering that challenges our basic ideas of species. The 2009 Map of the Decade is all about superstructuring these challenges. Here's how to use it:

Start at the top

Scan the columns for the five big shifts that point to the scale of change we face. These tell us where to focus our attention as we look for opportunities to work at new scales.

Then focus on the rows

In the rows, you'll find our forecasts. Five of these forecasts suggest flashpoints for superstructuring—in our personal well-being and relationships, the practices and projects that animate our lives, or the tools and knowledge that we tap into during the course of those activities.

Next, take a look at the signals scattered across the map

These are the details of change, and they add up to the forecasts. They also add up to possible strategies for reinvention, for remaking careers, organizations, communities, and even nations.

Finally, go the heart of the map

Here you'll find five superstruct ecologies: combinations of superstructures imagined by more than 7000 players of the Superstruct massively multiplayer forecasting game. These ecologies point to new ways of organizing everything from food to government. They give us an ecological view of the future.

START SUPERSTRUCTING NOW

The map highlights seven Superstruct Strategies—strategies for reinventing practices, products, and at extreme scales. Use them to start superstructuring.

Make a play in the world

Imagine your world as a game board. Use the strategies to start superstructuring.

SOCIETY: EXTREME-SCALE COLLABORATION

BEYOND FOXP2: CROSS-SPECIES COLLABORATION

Organizing beyond the scale of nations and global organizations, humans are developing new skills and patterns for cooperating across the scale from micro to macro—leveraging not only digital technologies but also, more and more, their own neurologies.



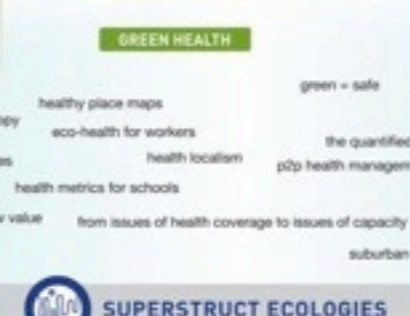
ECONOMY: ALTERNATIVE WEALTH

From alternative local currencies to an alternative basis for national currencies to new ways of generating and distributing wealth, the next decade will see mass-scale experimentation with new economic forms—driven, in many cases, by open-source strategies.



ENVIRONMENT: SUPERSTRUCTED ECOLOGIES

As organizational structures evolve beyond corporations, communities, and nation-states, humans are beginning to think ecologically about both natural and built environments—and to superstruct sustainable local and global ecologies.



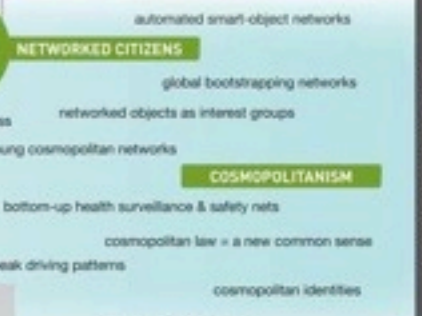
INFRASTRUCTURE: MEGA-STRUCTURES

Using the Internet as a template and starting from small, lightweight technologies, infrastructures will grow into mega-structures that have the resilience of distributed systems, the customizable nature of component systems, and a new energy efficiency.



POLITICS: A GOVERNANCE RENAISSANCE

After several decades of neglect, the art and science of governance will undergo a renaissance in which both the Global North and the Global South experiment with new forms of democracy—and seek to bring politics into alignment with 21st century science and technology.



SUPERSTRUCT STRATEGIES

- Enviability:** nurture genomic diversity & generational difference
- Extreme Scales:** layer micro & macro scales for rapid adaptation
- Ambient Collaboration:** leverage stigmaty with environmental feedback
- Adaptive Emotions:** confer evolutionary advantage with awe & wonder
- Reverse Scarcity:** use diverse and renewable rewards
- Amplified Optimism:** link amplified individuals at massive scales
- Playbooks:** challenge everything and everyone in fun, fierce bursts

SUPERSTRUCT ECOLOGIES

- THE APPLESEED ECOLOGY:** FOOD AS DISRUPTIVE ECONOMY. Games simulate real urban farm production + "bright green" high-tech sustainability solutions + alternative currencies—with open-source values.
- THE COMMUNITY WORKS ECOLOGY:** BUILDING EMERGENT LOCAL AND GLOBAL INFRASTRUCTURES. Community innovations scale to regions, nations, the world + new human pattern language for energy generation + distributed education networks—with a value on local solutions to global problems.
- THE NATURAL CURRENCY ECOLOGY:** LINKING SUSTAINABILITY TO SOCIABILITY. Natural currencies get linked to renewable energy capacity + other eco-values + alternative exchange platforms + new structures for families—with a value on sociability.
- THE OPEN FAB ECOLOGY:** REMAKING THE MATERIAL WORLD OUT OF POVERTY. Personal fabbing devices create regional fab task forces + new fabbing disciplines + mobile fabbing + open-source science and education—with cradle-to-cradle values.
- THE QUANTUM GOVERNANCE ECOLOGY:** BRIDGING DIVERSE REALITIES. 20th century science leads to 21st century governance ideas + trust tagging + rich media ecology + local food security + meta-networks—with a value on relational interdependence.

NEUROSOCIAL SYSTEMS

- emotionally enhanced disciplines
- emotional matrix
- reading thoughts: amendment
- intelligence in business
- intelligence as organism
- designer aging
- music therapy for neurological disorders
- "fun" health care

OPEN-SOURCE DEVELOPMENT

- open pharma
- open food
- open-source science
- open media
- open source
- philanthropy credits
- academic recognition/rewards crisis
- multi-capital metrics
- social networking tools for gift economies
- non-zero-sum currencies
- ubiquitous cubesats
- orbital debris

ALTERNATIVE CURRENCIES

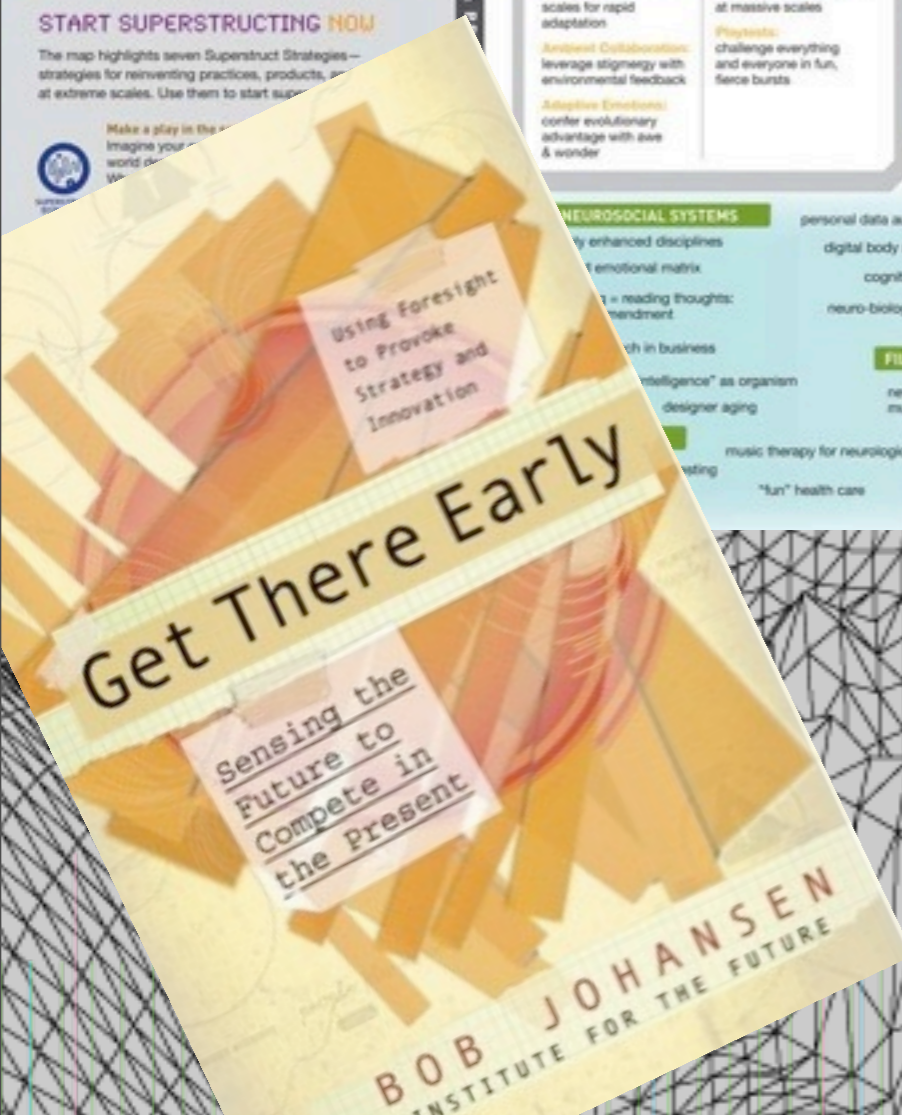
- social stock exchange
- carbon accounting
- waste liabilities
- new resource-based geo-identities
- new flood plain commons
- sulphate injection of stratosphere
- agricultural waste sequestration

TRANSLOCALISM

- reverse diasporas
- local & translocal alternative currencies
- mobile phone minutes as currency
- new global cities
- translocal alliances
- clean coal renaissance
- disappearing hospitals
- international scramble for farmland
- governance + environmental management
- "Medea Hypothesis"
- global conflict over climate goals & impacts

PARTICIPATORY PRODUCTION

- mobile fabrication
- self-programming materials
- mashability = key literacy
- a service in every product
- preview & redos
- big data media
- people as infrastructure
- roof-top farming
- server farms
- server farms as political & economic hubs
- server farms = new nation states



PEOPLE & NETWORKS
PRACTICES & PROJECTS
TOOLS & KNOWLEDGE

Foresight Mapping...

Emphasizes connections

Allows complex relationships

Focuses on “signals” and early indicators

Tends to remain useful over time

But...

More difficult to understand at a glance

Less likely to elicit surprises

Doesn't demand internal consistency

Immersive Futures...

Trigger visceral reactions

Emphasize experience

Create “plausibly surreal” artifacts of the future

Use provocation as a way of eliciting insight

But...

Can be a challenge to do well

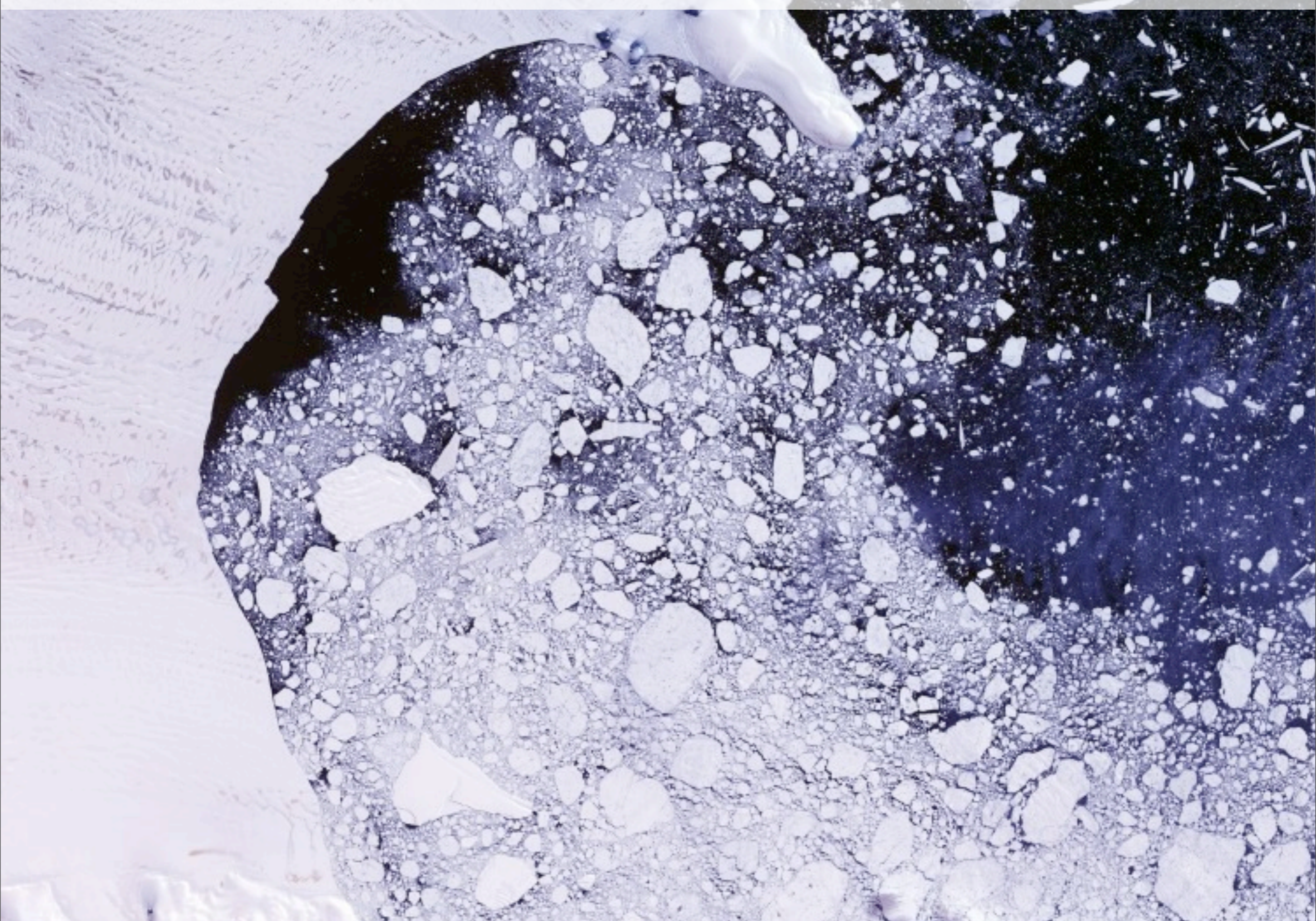
Require time to “live in” the future experience

Can provoke unexpectedly strong reactions

50 YEARS

What we often think of...

GLOBAL CLIMATE DISRUPTION



向非典宣战！

人多地方戴口罩，戴完消毒最重要。
遵照医嘱再服药，瞎吃乱塞受不了。
多开窗户勤通风，洗手消毒讲卫生。
均衡饮食练肌肉，病毒甭往咱这凑。
喷嚏鼻涕嗓子痒，不是非典别着慌。
一点小事就害怕，传谣信谣罪过大。
早发现、早报告，相关部门早知道。
早隔离、早治疗，爸妈妻儿得不着。
医护人员真辛苦，想个办法去祝福。
非典患者挺痛苦，多去关心不接触。
防治非典固重要，经济建设切莫误。
相信政府相信党，非典病毒终被除。



ECONOMIC DISLOCATION



© stefan ray

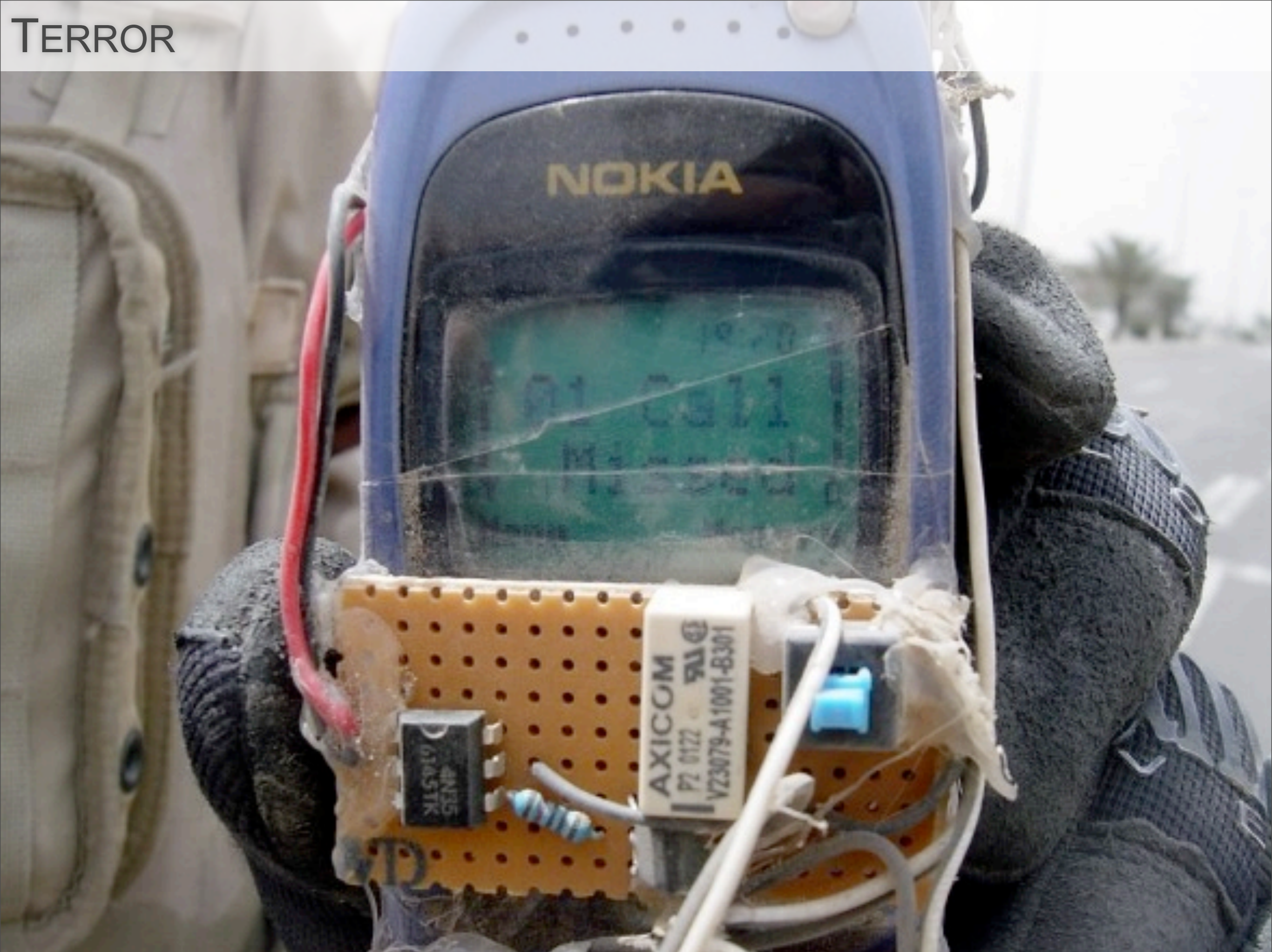
RESOURCE COLLAPSE



Photo by Stuart Candy

Friday, May 11, 2012

TERROR



Friday, May 11, 2012

GROWING STATE POWER



Friday, May 11, 2012

WAR



UNDERMARS.COM

Friday, May 11, 2012

AND EVEN...

AND EVEN...



But we have to also imagine...

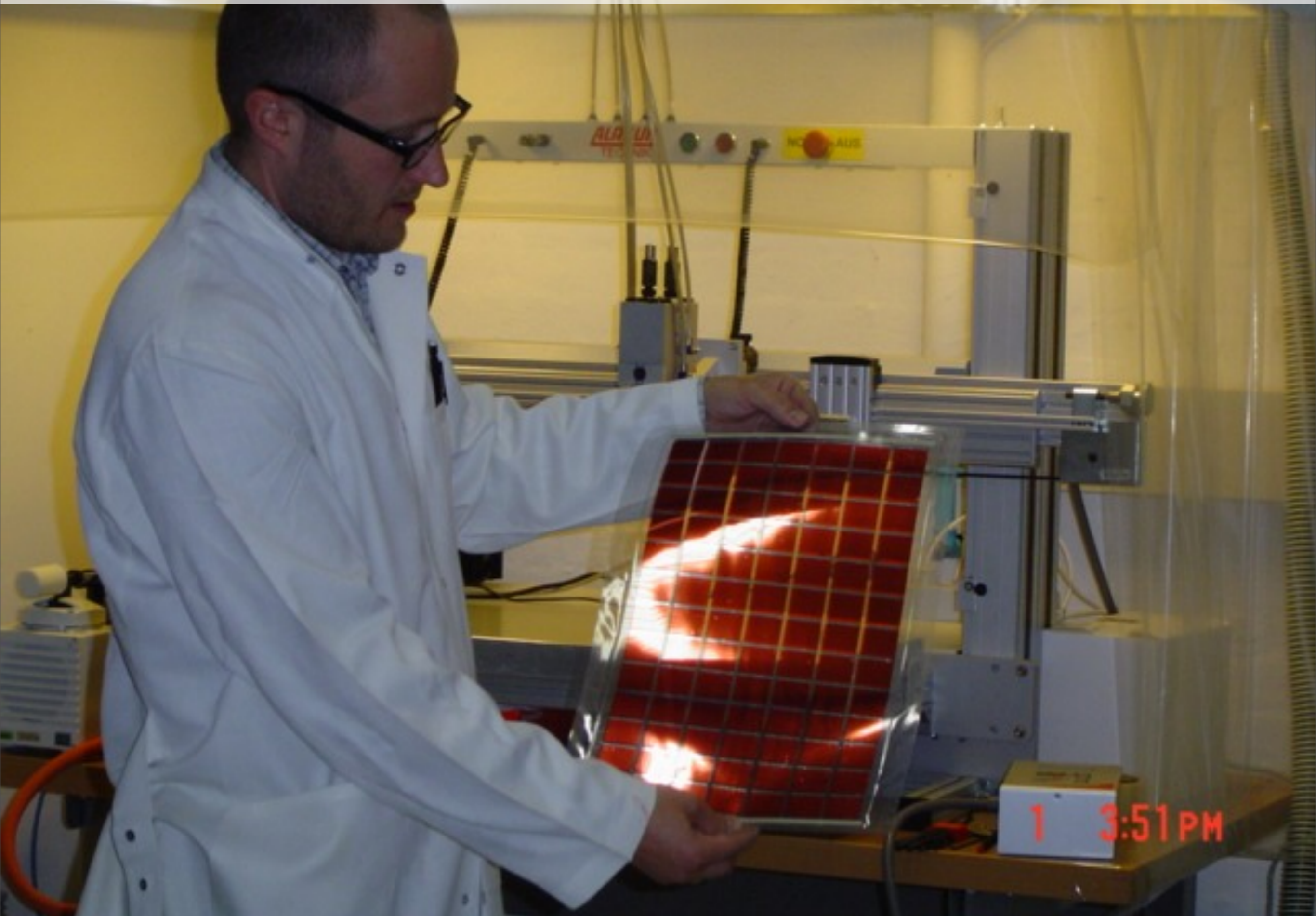
NEW WAYS TO LIVE



©Bill Dunster

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CHEAP, DISTRIBUTED ENERGY



“LEAPFROG” DEVELOPMENT



NEW ECONOMIC MODELS



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EMERGENT POLITICAL NETWORKS



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NEW TOOLS FOR WATCHING THE WORLD



[English](#) |
 [Español](#) |
 [Français](#) |
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 [中文](#)

[About](#) |
 [Blog](#) |
 [Donate](#) |
 [Store](#) |
 [Feedback](#)

- Feeds

- Select: [all](#), [none](#)
- ProMED Mail
 - ProMED MBDS
 - World Health Organization
 - EuroSurveillance
 - Google News
 - Moreover Technologies
 - Wildlife Disease Node
 - ProMED Español
 - Google News Español
 - ProMED Français
 - Google News Français
 - ProMED Русский
 - Google News Русский
 - Google 资讯

- Diseases, last 30 days

- Select: [all](#), [none](#) [info](#)
- Avian Influenza (473)
 - Salmonella (319)
 - Cholera (206)
 - Not Yet Classified (123)
 - Dengue Fever (119)
 - Influenza (118)
 - Measles (59)
 - Meningitis (48)
 - Other Animal Disease (40)
 - Listeriosis (39)
 - Ebola (36)
 - Gastroenteritis (36)
 - Rabies (36)
 - Foodborne Illness (25)

- Alerts by country

- Zoom to country:
- [United States \(373\)](#)
 - [China \(166\)](#)
 - [Canada \(104\)](#)
 - [Zimbabwe \(68\)](#)
 - [United Kingdom \(67\)](#)
 - [Australia \(47\)](#)
 - [India \(44\)](#)
 - [South Africa \(41\)](#)
 - [Vietnam \(41\)](#)
 - [Philippines \(33\)](#)
 - [Indonesia \(30\)](#)
 - [Nigeria \(24\)](#)

Zoom to: [N. America](#) [S. America](#) [Europe](#) [Africa](#) [Mideast](#) [Asia](#) [Australia](#) [World](#)

[Full Screen](#)



Date range: 13 Jan - 11 Feb

Latest alerts

Legend

COLLABORATIVE CREATIVITY

Maker Faire®

May 3 & 4 San Mateo Expo Center

LEARN TO MAKE AND CRAFT:

- Robots
- Rockets
- Bicycles
- Cars
- Electronics
- Sustainable Food
- Alternative Energy
- Sewing
- Circuit Boards
- Crafts
- Photography
- Art Cars
- Musical Instruments
- Pinball
- Knitting
- Wood Working



FEATURING 400+ MAKERS, INCLUDING:

- The Crucible
- Swap-O-Rama-Rama
- Bazaar Bizarre
- Combat Robots
- Cyclecide
- Homegrown Village
- Exploratorium
- ArtGolf
- Live Music
- MakerKids
- Village Blacksmith
- Life-Sized Mousetrap
- TechShop
- Neverwas Haul
- Calcars.org
- MAKE Play Day
- 19' Tesla Coil Twins
- Science Buzz Café
- Maker Store
- MAKE & CRAFT Labs

Introducing a Special Evening Program, Saturday, May 3rd from 6-10pm featuring: Fire Arts, Power Tool Drag Racing, Flaming Lotus Girls, Musical Acts, Steampunk Spectacular and more...

Open Architecture Network beta 0.2

Register or Log

ALERT: There are 71 days left to register for the Open Architecture Challenge

PROJECTS

CHALLENGE

PE



Rebuild Oct 2007 Wildfire Response | San Diego, CA, United States...

California Wild

This week wildfires ha California. Their path unpredictable and dev homes from Los Ange Diego, the local chap Humanity, and Archite Angeles have been wo responding to volunte Stadium and other ve

If you are interested i for Humanity's efforts. PayPal below. | Learn

Donate

Own the Day!

Support the OAN November

Want to see your architect

Geneious Pro 3.7.0

Back Forward Search Sort Agents Alignment Tree Assembly Primers Restriction M-Bases Help

Sources

- Local (734, 52 unread)
- Server Databases
- Collaboration
- Custom BLAST
 - blastn
 - blastp
 - blastx
 - tblastn
 - tblastx
- NCBI
 - BLAST
 - blastn
 - blastp
 - blastx
 - tblastn
 - tblastx
 - Gene
 - Genome
 - Nucleotide
 - PopSet
 - Protein
 - PubMed
 - SNP
 - Structure (1)
 - Taxonomy
- Pfam
- Domains
- UniProt

Name Description

- Basic_Bioinformatics Geneious Tutorial
- Complex (Nucleosome Core... -
- Contig 4 Alignment of 4 sequences: Fragment 4 (reversed), Fragment 3, Fragme

Contig View Text View Notes

Sequence...

ACAAGCGCGGAGCATGTGGATTAAATTCGATGCAACGCGAAGAACCTTACCTGGGTTT

Fragment 2 L...

Frame 0 T S G G A C G L I R C N A K N L T W V

Frame 1 Q A A E H V D * F D A T R R T L P G F

Frame 2 H K R R S M W I N S M Q R E E P Y L G L

Fragment 1

RAGCGCGAGTGGATTAATTCGATGCAACGCGAAGAACCTTACCTGGGTTT

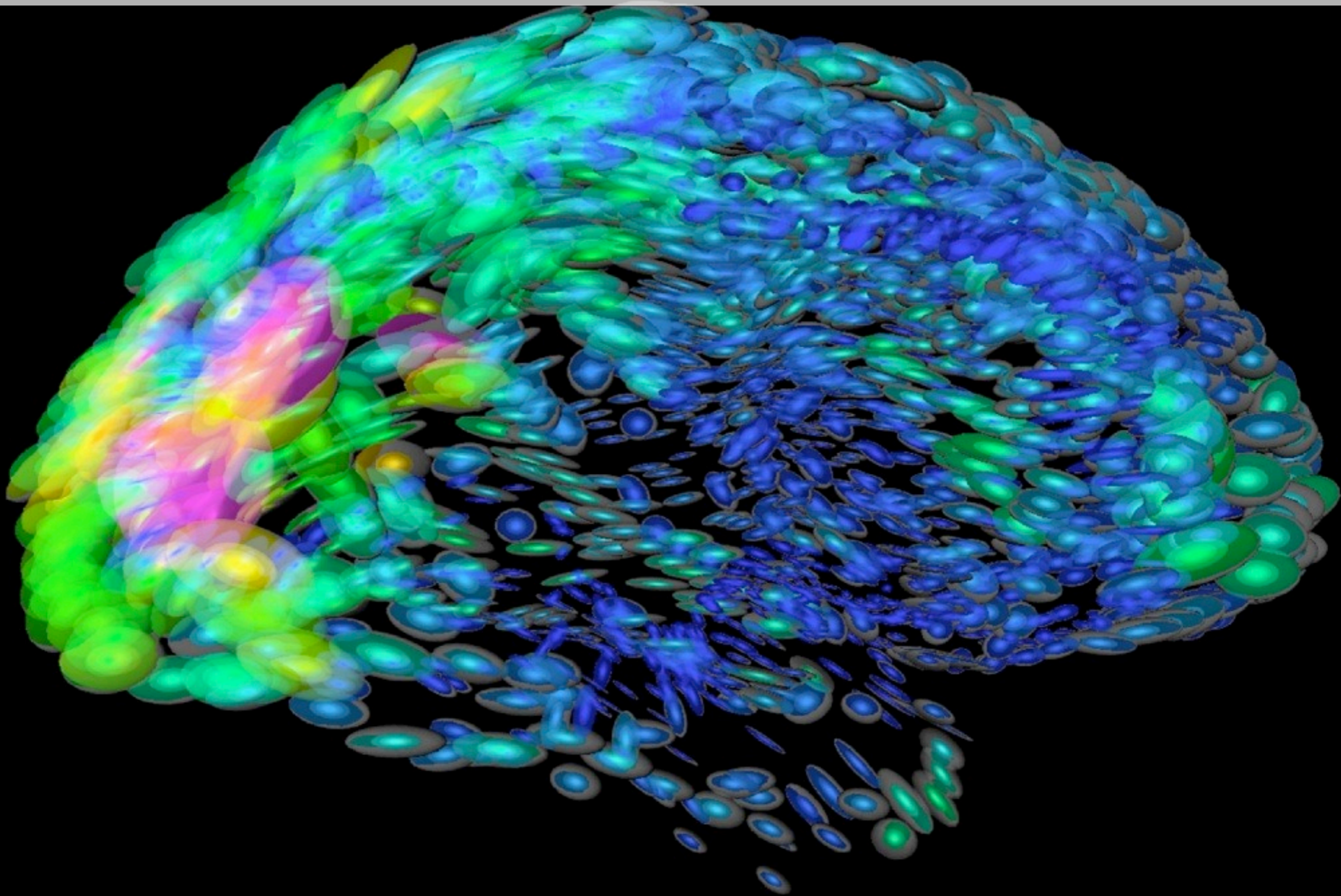
3-D structure Sequence View Text View Notes

To rotate, click and drag. To zoom, hold shift key while dragging. To pan, click and hold, then press ctrl + alt and drag.

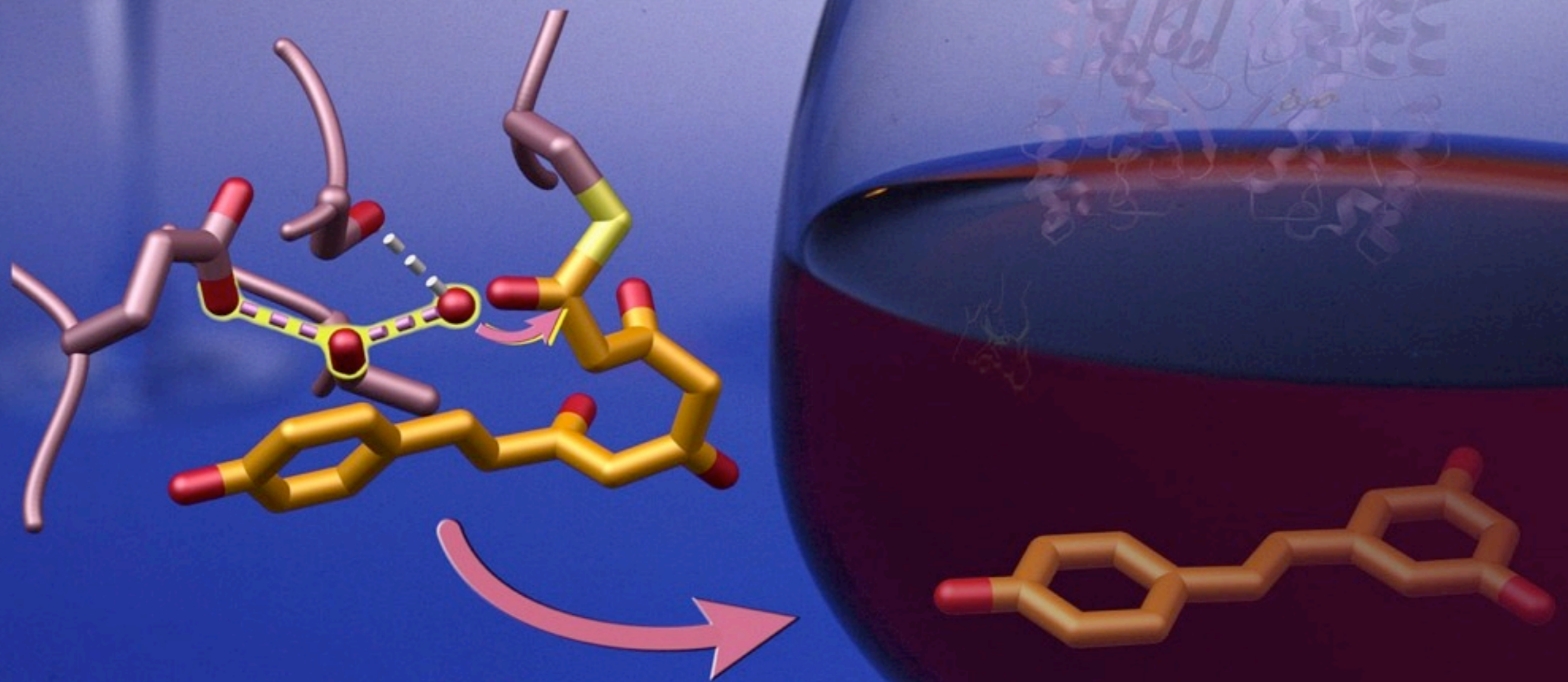
Sequence Logo

- Weight by quality
- Similarity
- Sliding window size: 10
- Consensus
- Annotations (8)
- Compress annotations
- Trimmed (8)

NEUROSCIENCE BREAKTHROUGHS



HEALTHY LIFE EXTENSION



ENVIRONMENTAL TRANSPARENCY

Footprint Rating 2:15 PM

Nutrition Facts

Carbon: 4 (2.2 kg CO₂e) **Localism: 8**
Overall Eco: 5

Projected Reputation Adjustment


- +1 California Organic Shoppers
- 1 Smart Shopper Network
- 3 East Bay Parents
- 0 MyFace friend circle

Producer Social Responsibility: 3
"Reportedly employs non-union labor at below-market wages."

Recommendation: Purchase Rarely

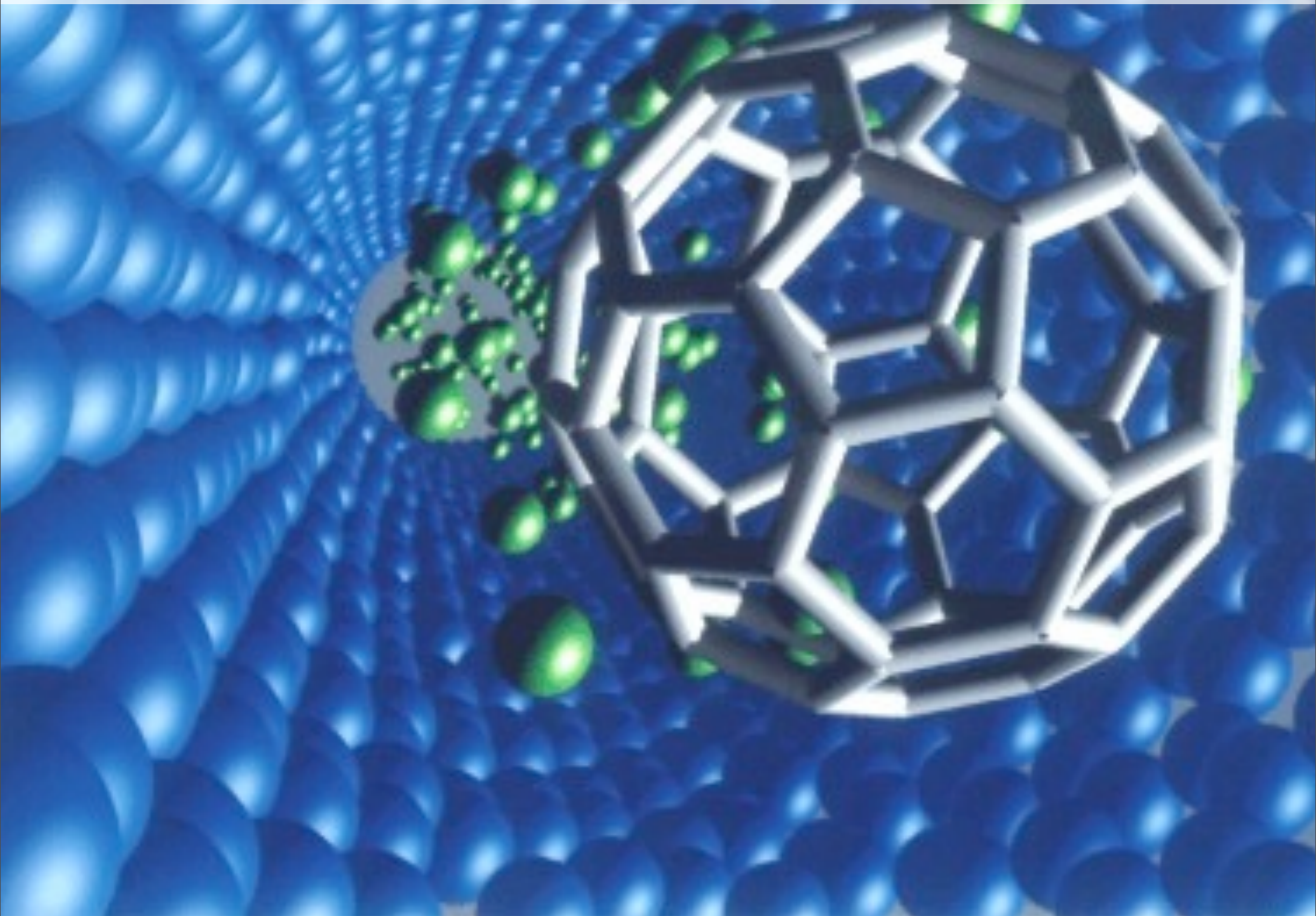
Update Shopping List

Cancel

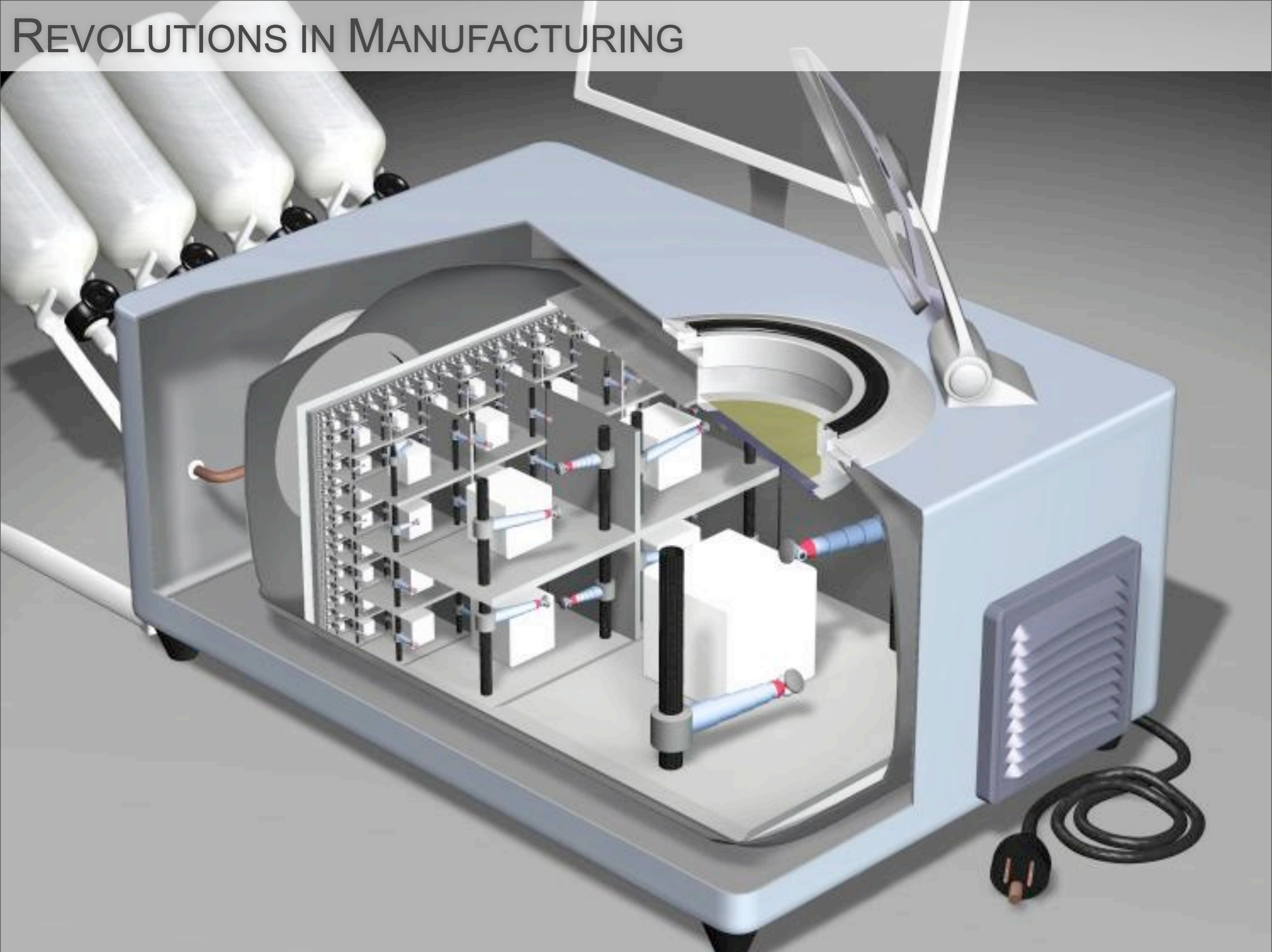


The image shows a smartphone screen displaying an application interface for environmental transparency. The screen is overlaid on a background of a grocery store aisle with a carton of milk. The app's main title is 'Footprint Rating'. It displays a 'Carbon' footprint of 4 (2.2 kg CO₂e) and a 'Localism' score of 8, resulting in an 'Overall Eco' score of 5. Below this, a 'Projected Reputation Adjustment' section lists several groups and their scores: California Organic Shoppers (+1), Smart Shopper Network (-1), East Bay Parents (-3), and MyFace friend circle (-0). The 'Producer Social Responsibility' score is 3, with a quote: "Reportedly employs non-union labor at below-market wages." At the bottom, a recommendation is given: "Purchase Rarely". There are two buttons at the very bottom: 'Update Shopping List' (orange) and 'Cancel' (grey). A QR code is visible on the right side of the screen, highlighted with a purple border. The background shows a hand holding the phone and another hand holding a carton of milk. The top of the screen shows a battery icon, a Wi-Fi signal, and the time 2:15 PM.

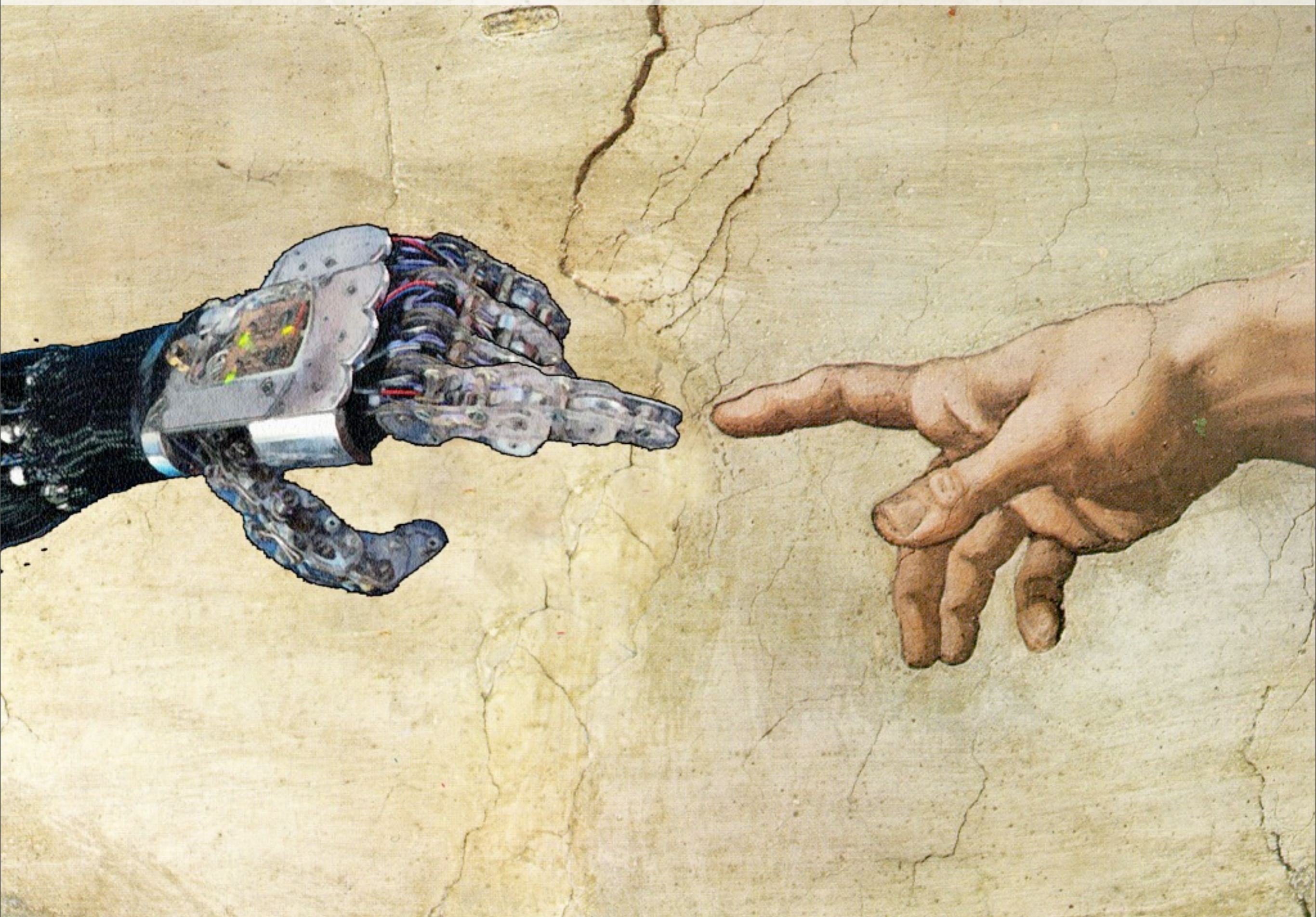
TRANSFORMATIVE MATERIALS



REVOLUTIONS IN MANUFACTURING



REVOLUTIONS IN COMPUTING



CRITICAL TENSIONS FOR THE NEXT HALF-CENTURY

Tension #1: new innovations undermine core institutions

Bottom-up drivers enable greater collaboration and participation, but also greater instability.

This is a future of *Open Source Design* and *Global Guerillas*. This is a world where power comes from the **Commons**.

Tension #2: new technologies co-evolve with new rules

Technology-driven changes enable more sharing of information and ideas, but abandon the remnants of old intellectual property and privacy rules.

This is a future of the *Smart Cities* and *Augmented Reality*.
This is a world where power comes from **Connections**.

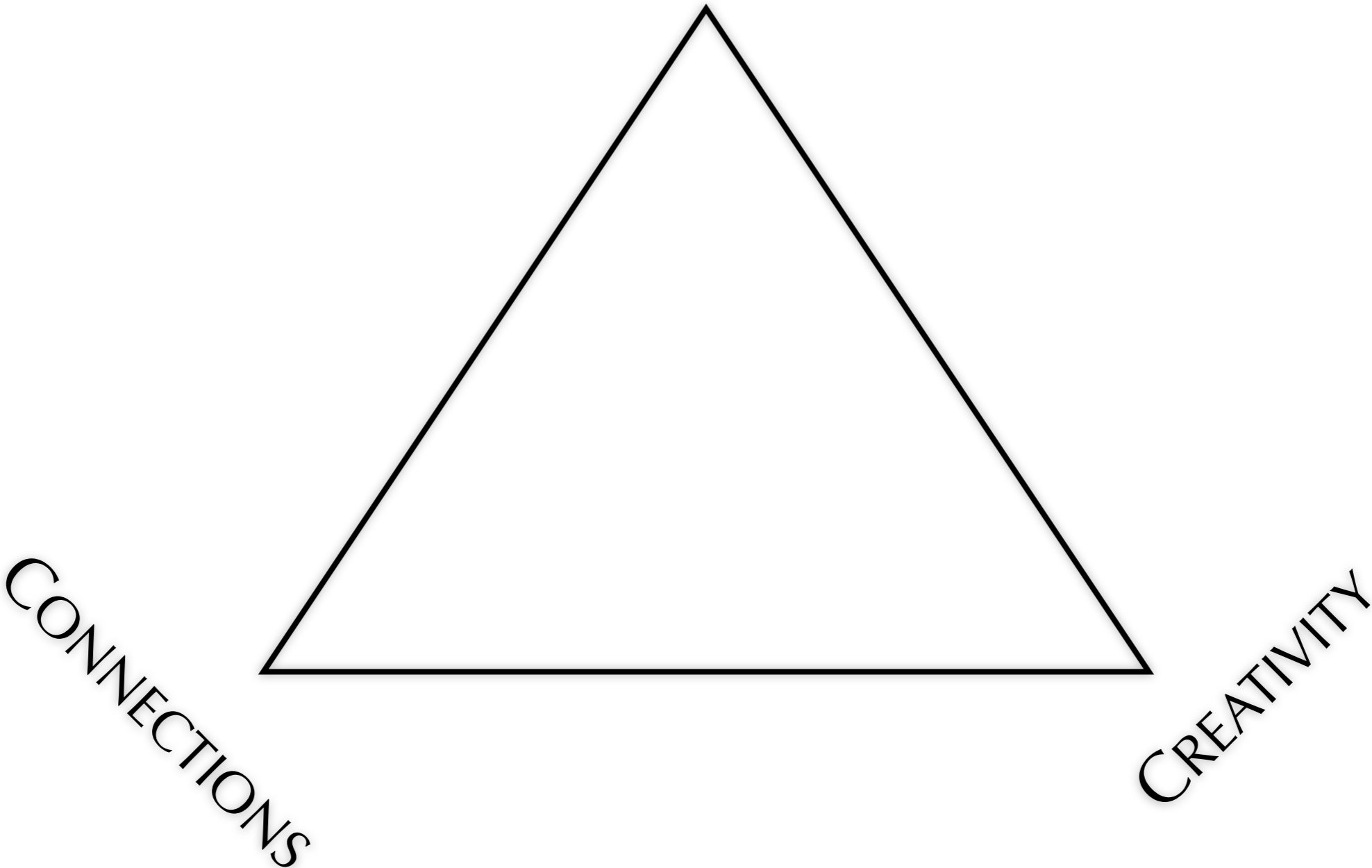
Tension #3: big-picture challenges force radical choices

Catastrophe and Opportunity combine to drive the creation of new economic, political, and social models.

This is a future of *Massive Disruptions* and *Unanticipated Consequences*.

This is a world where power comes from **Creativity**.

THE COMMONS



Using Foresight Thinking



AS A "WIND TUNNEL"



AS A “WIND TUNNEL”

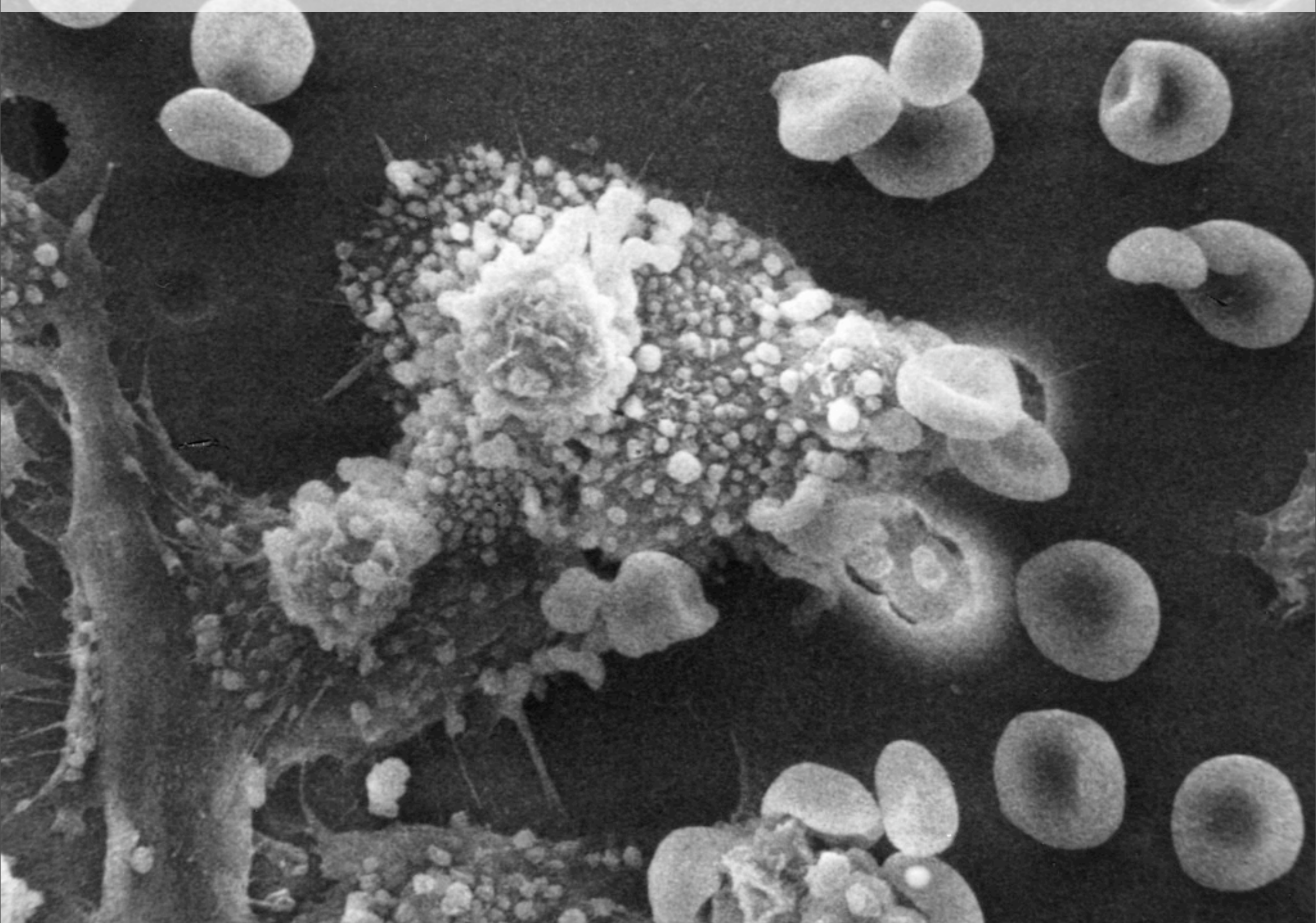


Testing Strategic Options

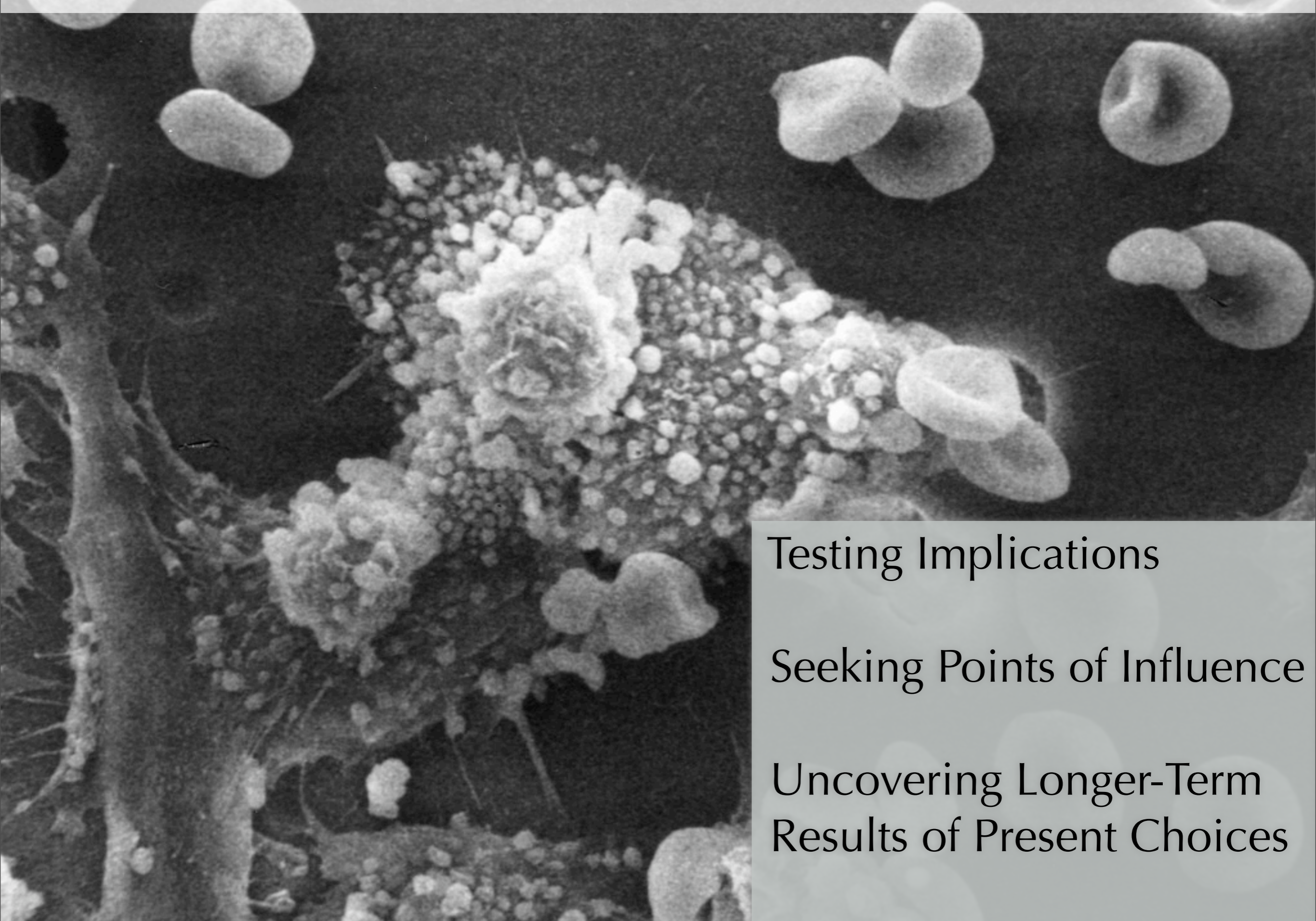
Seeking Adaptation

Evolving within a Dynamic Environment

AS AN "IMMUNE SYSTEM"



AS AN "IMMUNE SYSTEM"



Testing Implications

Seeking Points of Influence

Uncovering Longer-Term
Results of Present Choices

AS A CHALLENGE



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Friday, May 11, 2012

AS A CHALLENGE



Clarifying Goals

Offering Perspective

Connecting Purpose and
Intent Over the Long Term

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