

TRANSFORMING
BODIES AND LIFESTYLES

artifacts
from the future



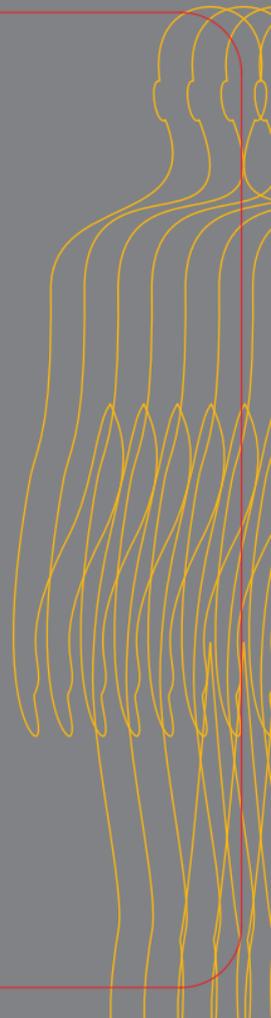
INSTITUTE FOR THE FUTURE

HEALTH HORIZONS PROGRAM | SR-1337
124 University Avenue, Second Floor
Palo Alto, CA 94301
650-854-6322 www.iff.org

TRANSFORMING BODIES AND LIFESTYLES

artifacts from the future

Transforming bodies and lifestyles is one of the most critical challenges of the next decade. Responding to this challenge will require innovations at different scales. These artifacts from the future depict new products, services, and innovations that represent a range of possible responses to enhance our individual and collective well-being. Designed to provoke your thinking and to re-imagine what is possible, these artifacts challenge you to engage with our *2020 Forecast: The Future of Science, Technology, and Well-being*. You can also use these artifacts from the future with the *Response Innovation Deck* to inspire your own creative responses to expand the health capacities of our bodies, networks, and environments.



HEALTH MART PHARMACY

BODIES

biopreview express
bypassing trial-and-error



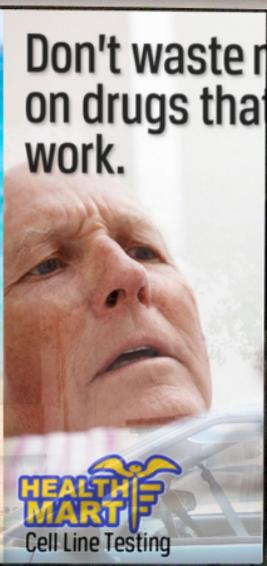
Your body is not a Petri dish.

HEALTH MART
Cell Line Testing



Now testing depression treatments

HEALTH MART
Cell Line Testing



Don't waste money on drugs that won't work.

Who can afford trial-and-error? Testing on your own cell lines saves money.

HEALTH MART
Cell Line Testing



HEALTH MART
Cell Line Testing



Take the mystery out of prescription

Only take prescriptions that work with your unique biology

HEALTH MART
Cell Line Testing



HEALTH MART
Cell Line Testing



biopreview express: bypassing trial-and-error

WHAT | The last three prescriptions did nothing, and may have left you feeling worse. You're sick of the cycle: a new drug a month, the same wait-and-see. And you're wasting even more money each time. It might be time for this cell line testing service. At first it was too expensive to consider but with HealthMart now offering their version it's affordable. Hopefully wait-and-see becomes knowing first.

SO WHAT | Getting the right treatment for the right person is an ongoing challenge for doctors. Regenerative medicine will open up unexpected opportunities to address this challenge, by enabling people to have their cell lines tested in advance to determine what their cells do, and do not, respond to. This sort of testing will usher in more personalized approaches to medicine and reduce the financial and physical costs of treatments that don't work.

[regenerative medicine](#) | [personalized medicine](#) | [biological previews](#) | [health future proofing](#)
[biological simulation](#)



futurU

Warning

Persons loitering in this station
are subject to prosecution
under TTC By-law #1,
Section 6.

View your
future.
Remake your
present.

see yourself:
calmer
happier
active



actual
FuturU
rendering

AVATAR TECHNOLOGY
HappyBox Gaming **HB**

RIGHT
NOW



ARE YOU
stressed?
depressed?
inactive?

only
10
mins!



BODIES

futurU booth
motivating a healthier future



futuU booth: motivating a healthier future

WHAT | So today wasn't the best day—snippy coworkers, missed deadlines, a donut for lunch. It's hard to imagine tomorrow being better. But why leave tomorrow to the imagination? In ten minutes this booth immerses you in a healthier, happier reality: a photorealistic avatar of you as calm, collegial, exercising, and eating real food for a change. And it was just the motivational pick-me-up you needed to get back on track.

SO WHAT | This experience puts into action insights from behavioral psychology about how our own image—changed in some way and reflected back to us—influences our decisions. Situated in a highly accessible train station, it continues to link health and fun while amplifying beyond the home. It invites tired, stressed, and sedentary commuters to motivate themselves through the evening and the days to come with aspirational visions of themselves.

health previews | augmented environments | motivation | visualization
virtual reality | mobile health



FABRICACIA

COMIDA *es* MEDICINA



BODIES

Farmacia y fabrica
Comida es medicina



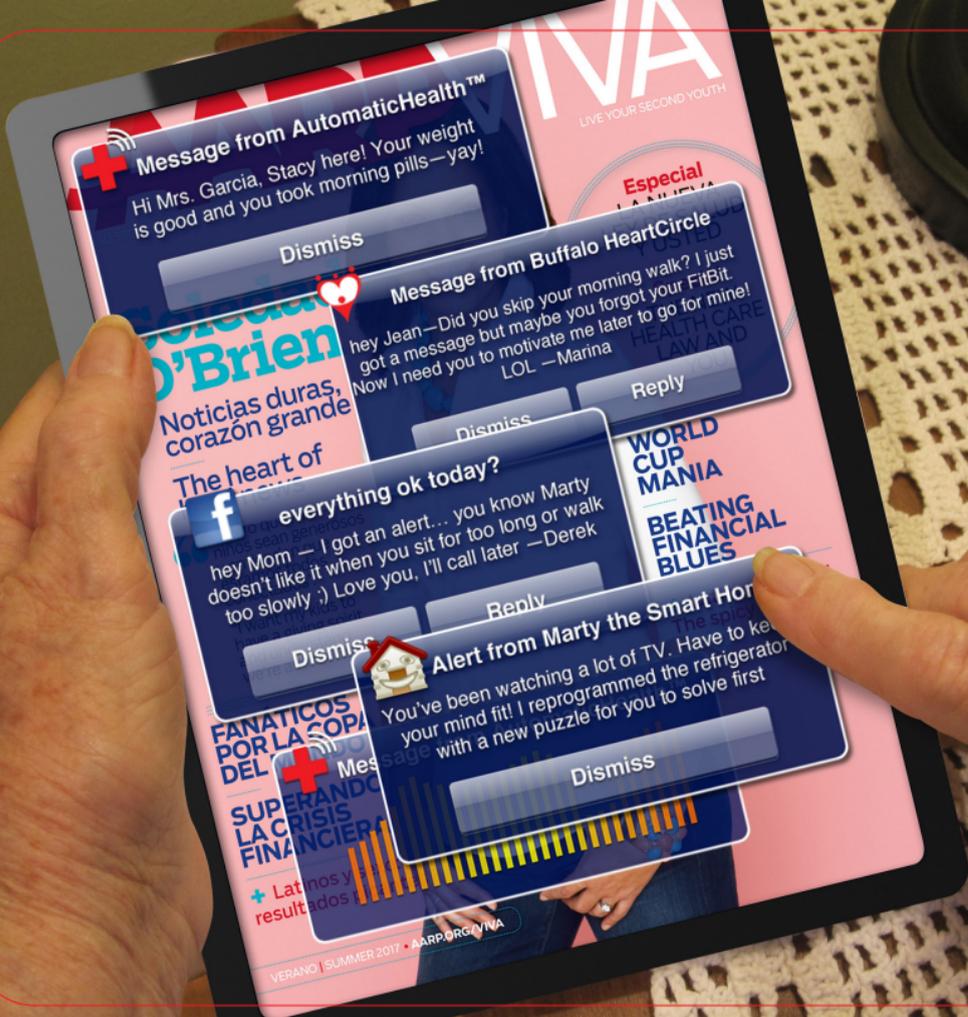
farmacia y fabrica: comida es medicina

WHAT | There's still no 'killer app' for your new food printer—cheaper food or tastier food than cooking yourself. But inspiration might come from here, where food printing technology meets basic nutrigenomic testing to create truly healthy, personalized food. The process is water-intensive but reliably supplied by a soda company, and each fabricacia is a story of micro-entrepreneurship in action. The United States is unhealthier than ever; maybe this idea should take root here.

SO WHAT | Pharmacies in the developing world are already central to their health care delivery systems. Beyond health offerings, pharmacies and convenience stores are centers for banking and communications services. Equipped with new 3D printing technology and insight from nutritional science these *farmacias* evolve into *fabricacias* and become critical focal points in the health and well-being economy. This would transform the manufacturing and distribution of foods and supplements.

automated nutrition | programming immunity | optimizing healthspans
3D printing | nutrition science | genomics





dueling douglas
competing health support



dueling doulas: competing health support

WHAT | Your mom is as wired as any tween. You retrofit her home with dozens of sensors—refrigerator, recliner, even the carpet—and she wears a small device to detect biosigns and physical activity. This data is streamed out 24/7—to nearby friends in the Buffalo Heart Circle; to you, halfway across the country; to a local service monitoring the data for changing patterns; even to the opinionated smart home itself. But they all have opinions. And Mom? She’s just trying to finish her magazine.

SO WHAT | Technology catalyzes smarter interventions for human caregiving: self care, family, and providers. While each of these services contributes adaptive encouragement and support, together they exact a cost: information overload. Ideally, their recommendations dovetail into seamless care, but sometimes they contradict each other, or just miss the right context for their message. Unless this can be managed, many will simply tune out.

embedded health | optimizing healthspans | sensors and sensor networks
bioinformatics | caregiving



facebook

Nov. 18, 2017

Adrian Aickin

Looking for a quality used exoskeleton? Twing me!

Hayat Cas

we're leaving for a tour of the city at 7pm

Jody Pasque

My implant is getting interference today

Pam Wong

My grandma has turned off all of her virtual doulas...

facebook **health**



Dale Kirchner gained 9 lbs this week and his updates show signs of depression.

Connect Dale with 3 healthy friends (Suggestions) to get him back on a healthy track.

Sponsored Ad



So much is affected by our online health identity. Is yours accurate? Does it need some help? Experts at health identity verification and modification.

at 7pm

Kai Rizo

just created a killer new augmented filter, trade?

Scott Cooper

just got free rides on MUNI for spitting into a test tube!

Sponsored Ad



Your inner-network's health rating is 194.5! Switch to health insurance that rewards you and the people that keep you healthy.

Houda Jabat

2000 channels and nothing good to watch. X-LOL!

Kevin Radzik

I'll trade a carbon credit for a water credit...anyone?

Dean Duragan

mom just facebook

facebook **health**

Friend Suggestion



Daniela Gamillo
(3 mutual friends)

Influence on your health:
+4.7 fitness | +9 mood

Eugene de Juan

This update blocked by your **No-Drama Mental Health Filter**

Gael Hagan

I swallowed my mobile again — need your phone #s!!!

NETWORKS

healthy friends
navigating contagion health

Phoenix Neurofit



brainbook



Elisa Garcia, 63
0.7 miles away
Great match: volunteering
[Challenge her?](#)



Marie Chiou Liaw, 51
5.4 miles away
Great match: interests (music)
[Challenge her?](#)



Eugene Becker, 54
11.7 miles away
Great match: consulting
[Challenge him?](#)

[\(17 more...\)](#)



This week's challenge:
“**Live and Let Puzzle**”

Stay fit and contribute to this week's research challenge of **300!**



BULLSEYE

Next meetup:

Tues Oct 4 at Bullseye [\(map\)](#)

Community Health Meeting Room



pre-Alzheimer's network: a networked prescription

WHAT | It certainly wasn't the diagnosis you were hoping for: "Pre-condition Alzheimer's." But this isn't your father's disease, starting with your cognitive assessment at the new neurofitness clinic. Afterwards they 'prescribed' a social network, made up of people locally and remotely at a similar stage fighting off any decline. You share strategies and results, and challenge each other to cognitive fitness tests that also contribute to research—workout partners for mental fitness.

SO WHAT | We've seen many peer-to-peer groups spring up to help each other deal with conditions, recovery, and advocacy. This continues the trend as people receive more diagnoses before they have any symptoms. In this scenario, an emerging institution of boutique clinics for age- and brain-related disorders prescribes a social network as a key part of delaying or preventing illness. Brain games and peer challenges double as data contributions to continued research.

**diagnosing the pre-sick | crowdsourced research | adaptive encouragement | contagion health
neuromodulation | health networks | peer-to-peer support**



choice reducer 5000
less is more



You'd need to run:
48 min
to work this off

You'd need to run:
67 min
to work this off

BLOCKED
BLOCKED
BLOCKED
BLOCKED
BLOCKED
BLOCKED
BLOCKED

Neela
removed
this item

3:11 pm
1803cal
instant support: Neela



choice reducer 5000: less is more

WHAT | 3:11 pm, your weakest time. You've already reached your calorie limit for the day, but the vending machine still calls. Time for a new defense—an app for your augmented reality glasses that blocks from view the foods that you shouldn't eat. Instead, the app shows minutes of treadmill time to work them off. Your best friend Neela is your food coach, and she even removes your worst weakness altogether.

SO WHAT | Mounting evidence shows that the plethora of choices we face when finding food are bad for our peace of mind and self-control, but store formats are slow to change. Manufacturers are in a bind between simplifying and catering to fragmenting desires. But in this future, an individual reclaims choice through voluntary simplicity: using augmented reality to mask temptations and stick to health goals.

health preview | choice reduction | behavior change | context sensing
chronic disease | augmented reality



CUSTOM NEURO RETROFIT QUOTE

PREPARED FOR: **LUXLIGHT CORP.**

LEARN "GESTURES" AS
COGNITIVE AIDS

WALL COLOR CHANGES
BASED ON WORK NEEDS
RED=FOCUSED, CLERICAL
BLUE=CREATIVITY

FAST CLICK SOUNDS CAN
"SPEED-UP" YOUR BRAIN!

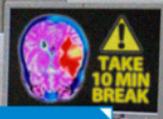
PLEASANT ODORS HELP
CONCENTRATION,
MEMORY, AND SKILL
ACQUISITION

PROGRAM CHAIRS FOR
"RIGID" NEGOTIATION
OR "SOFT"
COLLABORATION

LEARN "KEY-WORDS"
FOR PRIMING
PRODUCTIVITY

CEILINGS:
HIGHER FOR CREATIVITY
LOWER FOR DETAIL WORK

REDUCE STRESS WITH
COGNITIVE LOAD
NEUROFEEDBACK TOOL



ENVIRONMENTS

neuro feng-shui
the optimized workplace



neuro feng-shui: the optimized workplace

WHAT | Employee turnover is out of control, and even full-timers work anywhere but the office. Unhealthy for the body and mind, you hear them say. The solution? Retrofit and redesign the office. This firm is renowned for applying insights from neuroscience to the workplace, and their suggestions range from stress-sensing chairs to dynamic walls and ceilings that can be “dialed” for certain moods.

SO WHAT | Employers are already struggling with competing demands to increase productivity without sacrificing employee health. In the coming decade, research into how our physical spaces shape our brains, bodies, and behaviors will open up new opportunities to redesign the workplace to reconcile this balance. While many retrofits will focus on using choice architecture to guide employees, the line between subtle influence and coercive design may get fuzzy.

choice architecture | **neuromodulation** | **privacy backlash**
augmented environment | **persuasion**



Give us some spit. Get some free rides.

Our epigenetics reveal stress levels.
We're creating a stress map of the city
to fix problems—smarter.

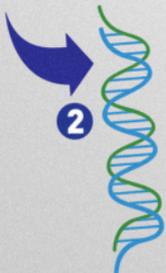
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4



2



3



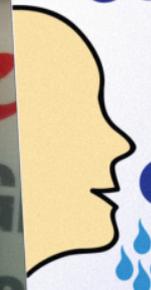
IN PARTNERSHIP WITH



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1



4



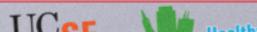
2



3



IN PARTNERSHIP WITH



ENVIRONMENTS

de-stressSF
epigenetic:civics



de-stressSF: epigenetic civics

WHAT | You're immune to impulse buys at check-out, but this one is different—a local 'stress map' of San Francisco built from epigenetic measures. Scary stories about epigenetics fill the news these days. Genes can be altered by how we live today: toxins, the environment, even daily stressors. This map will put some hard data behind the experiences of people across the city. You don't need the free light rail rides for participating, but free is free.

SO WHAT | This initiative represents a step towards a truly therapeutic city. This partnership acknowledges that stress impacts not only our individual bodies, but our collective bodies as communities who share surroundings, creating impacts that will echo through generations. It also fits in with a re-imagining of public health: with more multi-sector collaboration, crowd-sourced participation in research, and individual ownership and donation of data.

crowdsourced research | therapeutic city | data donorship | mental health
new civic participation | epigenetics



about the ...

INSTITUTE FOR THE FUTURE We are an independent, non-profit strategic research group with more than 40 years of forecasting experience. We are located in Palo Alto, California.

HEALTH HORIZONS PROGRAM We offer clients a deep understanding of the global health economy in the next three to ten years. The core of our work is identifying trends and discontinuities that will reshape health and health care systems, technology and the workplace, and human identity.

For more information about us, or if you would like additional support in using this Deck, please contact Dawn Alva, dalva@iftf.org. Follow us on Twitter [@IFTFHealth](https://twitter.com/IFTFHealth).

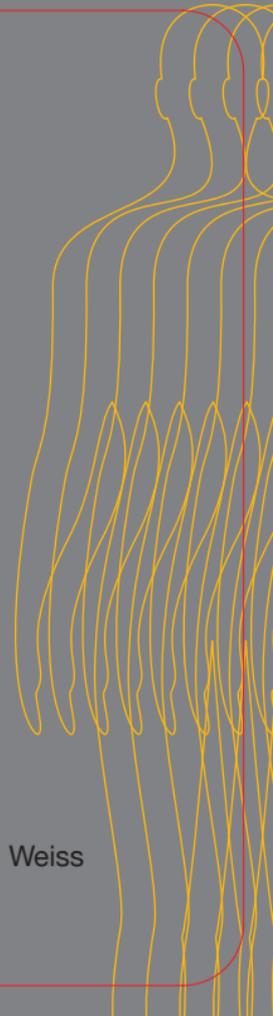
ACKNOWLEDGMENTS:

Authors: Miriam Lueck Avery, Rod Falcon, Bradley Kreit, Jason Tester

Producer and Creative Director: Jean Hagan

Production Editor: Lisa Mumbach

Design and Production: Robin Bogott, Scott Cooper, Karin Lubeck, Jody Radzik, Robin Weiss



TRANSFORMING BODIES AND LIFESTYLES

artifacts from the future

Artifacts from the Future depict the foresight of other materials produced by IFTF's Health Horizons Program in 2010 in concrete, everyday situations.

EXPLORE:

- The *2020 Forecast Map, the Future of Science, Technology, and Well-being*, which charts the emerging capabilities that make these artifacts possible in the future.
- The *Transforming Bodies and Lifestyles Response Innovation Deck*, which provokes you to invent your own responses to the challenge.
- The *Future of Science, Technology, and Well-being Perspectives*, which forecast four resources to build well-being in depth.

These materials are available at www.iftf.org or by contacting **Neela Nuristani** at nnuristani@iftf.org.

