

Wearables That Work: 10 lessons from the field

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In 1989, Ziba worked with Nike to develop the Walkmate, an ultrasonic distance tracker. It was a technical success, but struggled to gain adoption among athletes or consumers.



Design's Next Big Frontier? Shaping Behavior In Real Time

IF CES PROVED ANYTHING, IT'S THAT DESIGNERS FINALLY HAVE THE TOOLS TO TRULY INFLUENCE BEHAVIORAL PATTERNS. WATCH OUT, WORLD.

In the 25 years since, numerous wearable technology projects—ours and others—have made it clear that making wearables that work demands far more considerations than simple technological function and wearability.

Here are ten of them.

Tech That Tracks Your Every Move Can Be Convenient, Not Creepy

BY SEAN MADDEN 03.10.14 | 6:30 AM | PERMALINK

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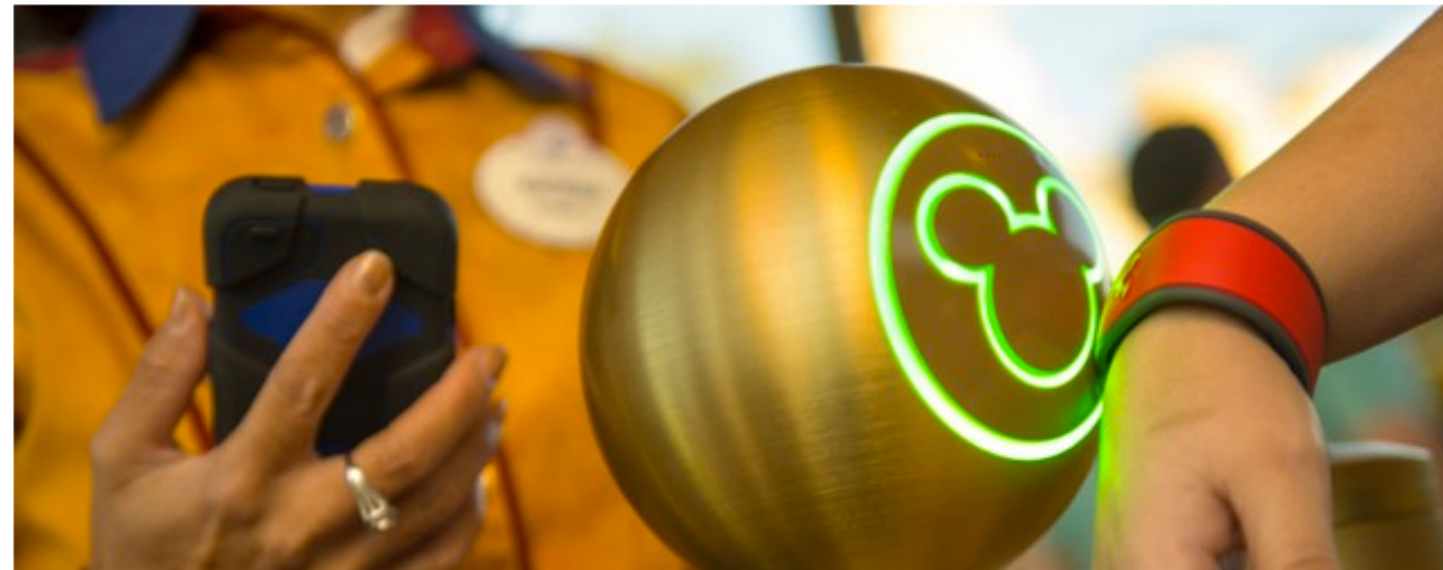
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01

PURPOSE-LED

BEATS

TECHNOLOGY-LED



A wearable designed to showcase new technology will be embraced temporarily, by a handful of early adopters.



Technology-led



Purpose-led

02

IF ACCESS ISN'T

IMMEDIATE,

WHAT'S THE POINT?



A progress bar is annoying on a laptop,
and exasperating on a smartphone.

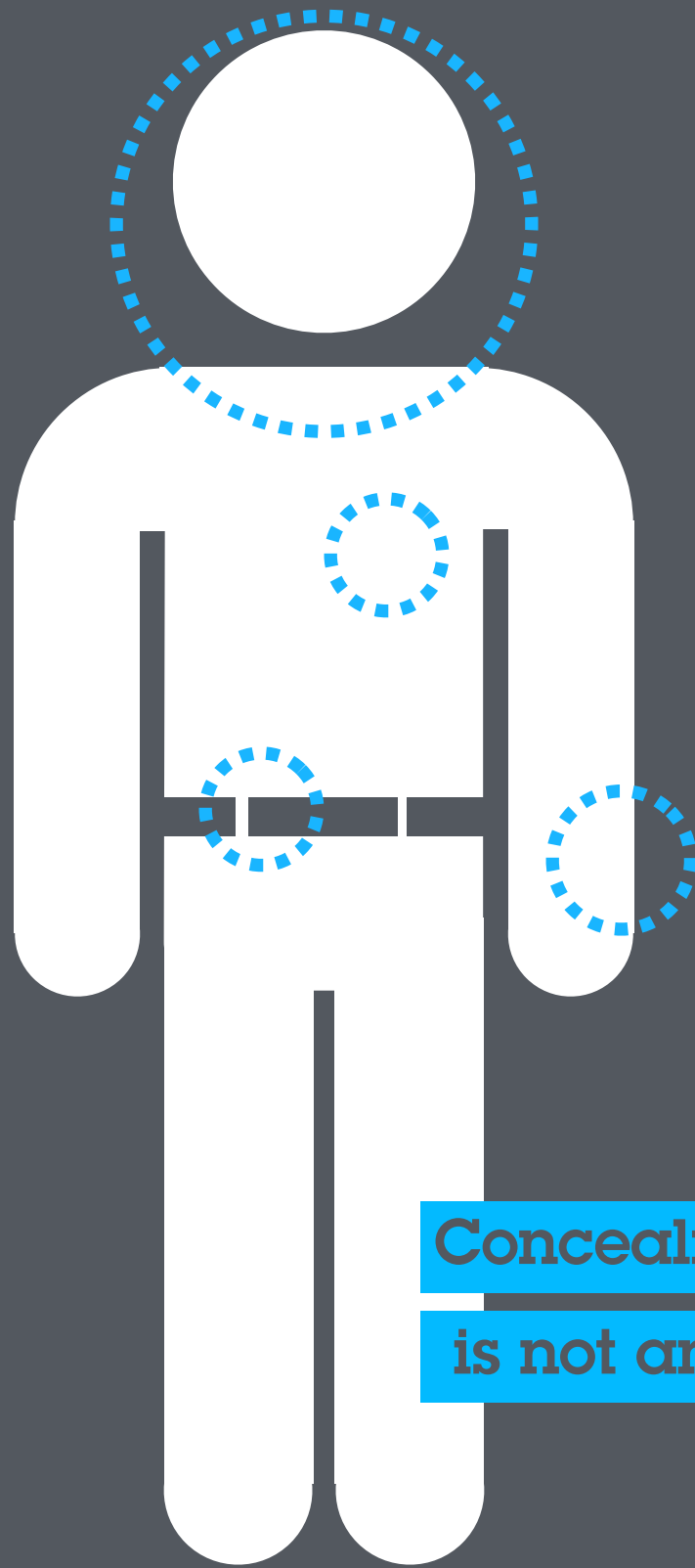
It's unforgivable on your wrist.

03

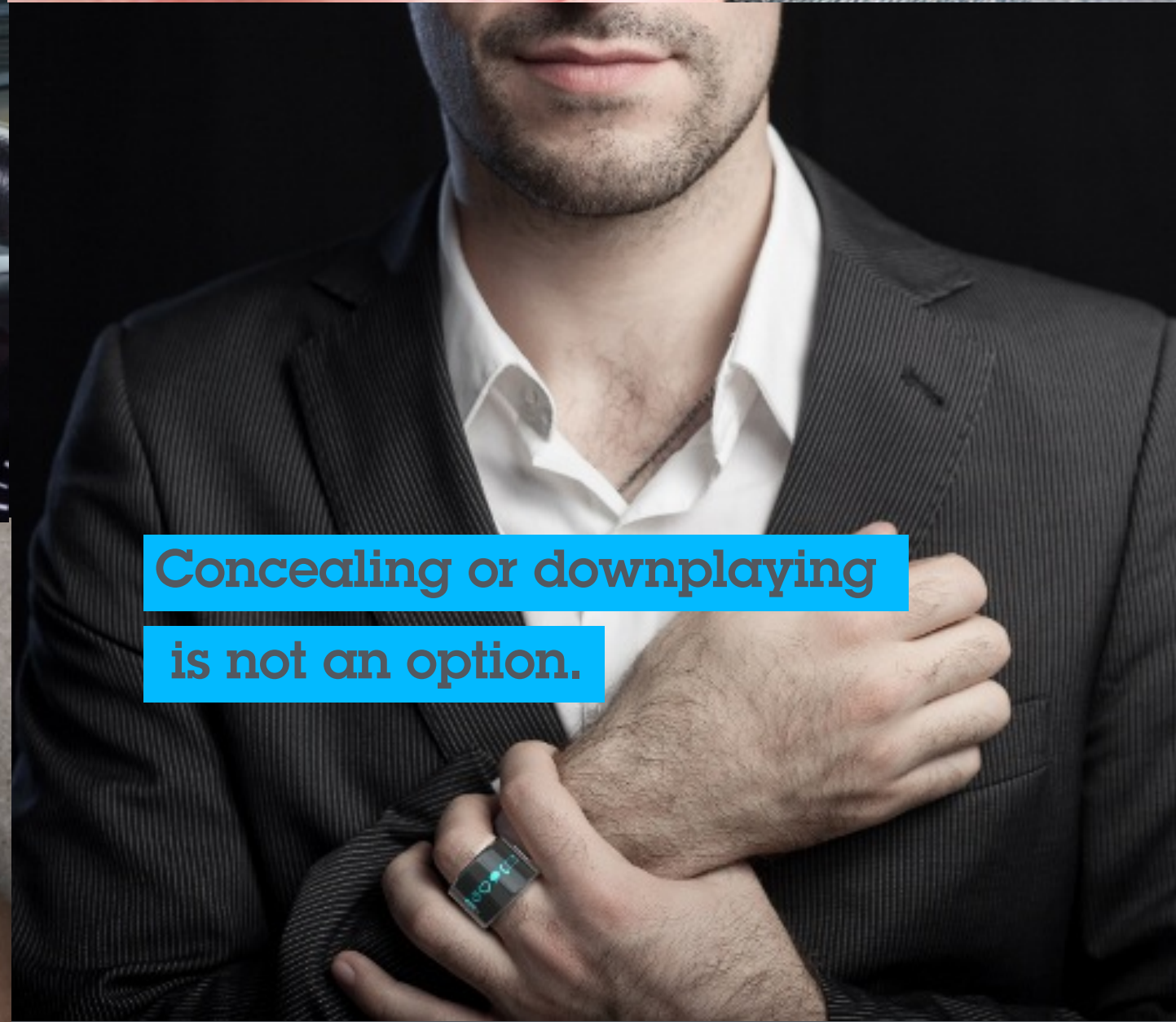
BODY REAL ESTATE

IS LIMITED AND

HIGHLY VISIBLE.



Concealing or downplaying
is not an option.



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is not an option.

04

ANYTHING CLOSE

TO YOUR BODY

DEFINES YOUR

IDENTITY.



A piece of technology touches the skin
becomes as intimate as clothing or jewelry.



It demands the same emotional attention.



05

THE FASHION

INDUSTRY WON'T

SAVE US.

A close-up photograph of a person's neck and shoulders. They are wearing a futuristic collar made of several rectangular, flexible solar panels. The panels are arranged in a circular pattern around the neck, and each panel has a grid of small, glowing yellow lights along its edges. The person's skin is fair, and their hair is dark. The background is a dark, solid color.

The technology isn't there yet.

FASHION

Ask Lynn: Can Wearable Tech Ever Be Chic?



NOVEMBER 20, 2014 11:20 AM
by LYNN YAEGER



Photo: Courtesy of Google

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Dear Lynn,

I can't wrap my mind around it: Is wearable tech chic? Will it ever be? Am I going to be the only person out there without some sort of Google/Apple/Samsung-



that promise to keep you warm in the winter, than the newest innovations may seduce you, even if they make your figure seem, as the songwriter put it, less than Greek.

Think about it: Clothes have a hard enough time making you look gorgeous without the added burden of having to take photographs, provide accurate maps, or measure your blood pressure. To keep a line sleek, to make sure a silhouette is flattering, these are no easy tasks—just ask a fashion designer who is attempting to create something wonderful in the non-tech world. A brief look at the roster of events at the upcoming Wearable Technologies Conference 2015 Europe in Munich (Should we go? Munich has a good flea market) bears this out: Though topics include “Technologies Inside the Body” and “Skin-based Wearables,” there is no panel on “How to Look Fetching in Google Glasses.” (Because it is impossible!)

But do let's remember that this is a field in flux, with new



Wearables today come with their own, very specific aesthetic. Fashion designers are accustomed to a far more flexible range of tools and materials than this.

06

INTERFACE SHOULD

BE AS LIGHT AS

POSSIBLE, BUT NO

LIGHTER.



Exhausting, intangible.

No physical feedback.



Evasive, distracted.

No one else can see what you're doing.

A close-up photograph of a person wearing a Star Trek uniform. The uniform consists of a black turtleneck with gold piping and a gold-colored jacket. A hand is placed on the silver Starfleet communicator badge on the chest. The background is white.

The best interaction is effortless,
obvious and tactile.

07

ALL WEARABLES

HAVE A LONG

SOCIAL ACCEPTANCE

CURVE.

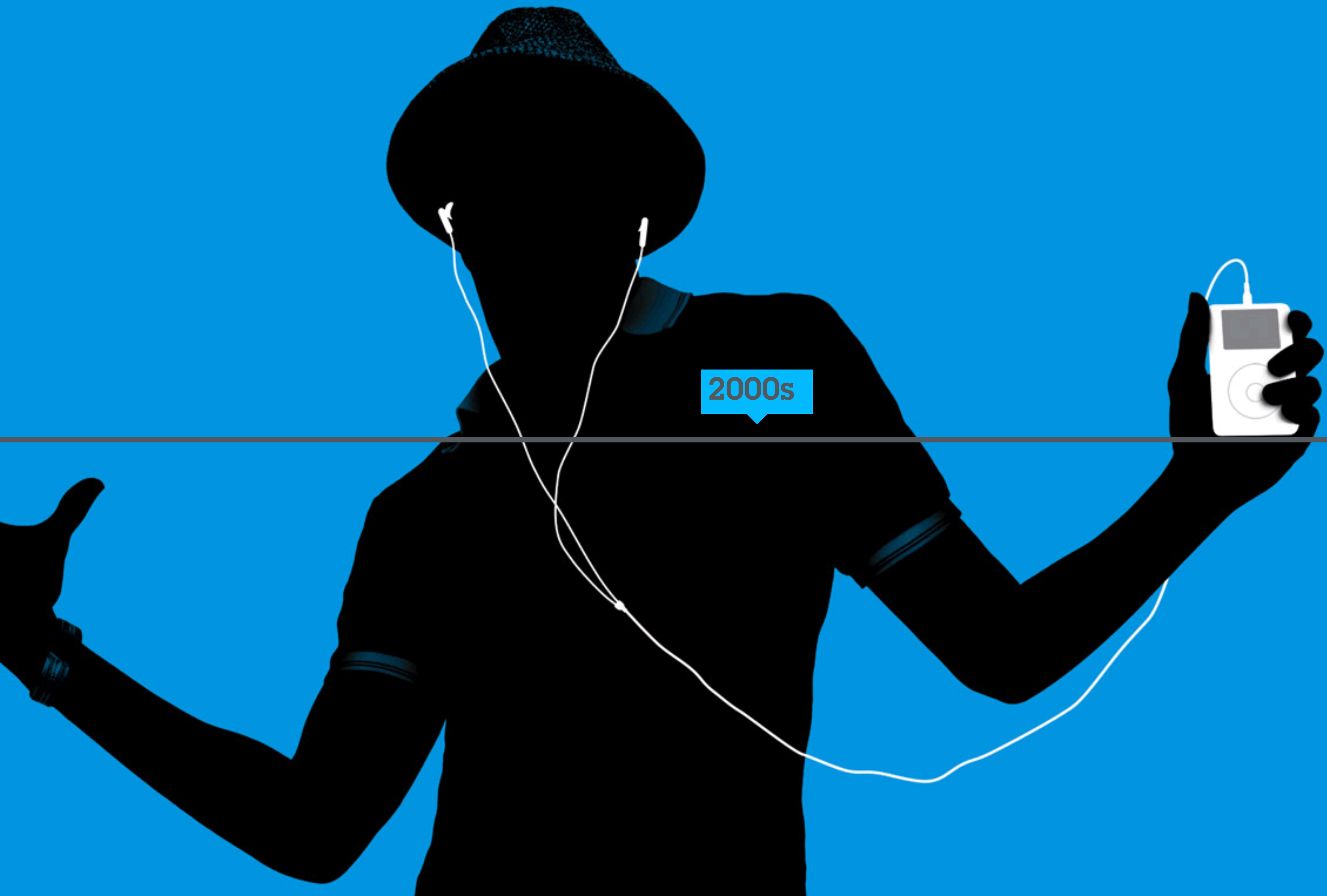
Headsets

1960s





1980s



2000s

08

THE GREATEST


POTENTIAL IS

OUTSIDE THE

CONSUMER MARKET.

Medical, educational and professional environments have much to gain from wearable computing, and face fewer obstacles.





Medical, educational and professional environments have much to gain from wearable computing, and face fewer obstacles.



09

THE DEVICE

MATTERS LESS THAN

WHAT'S AROUND IT.

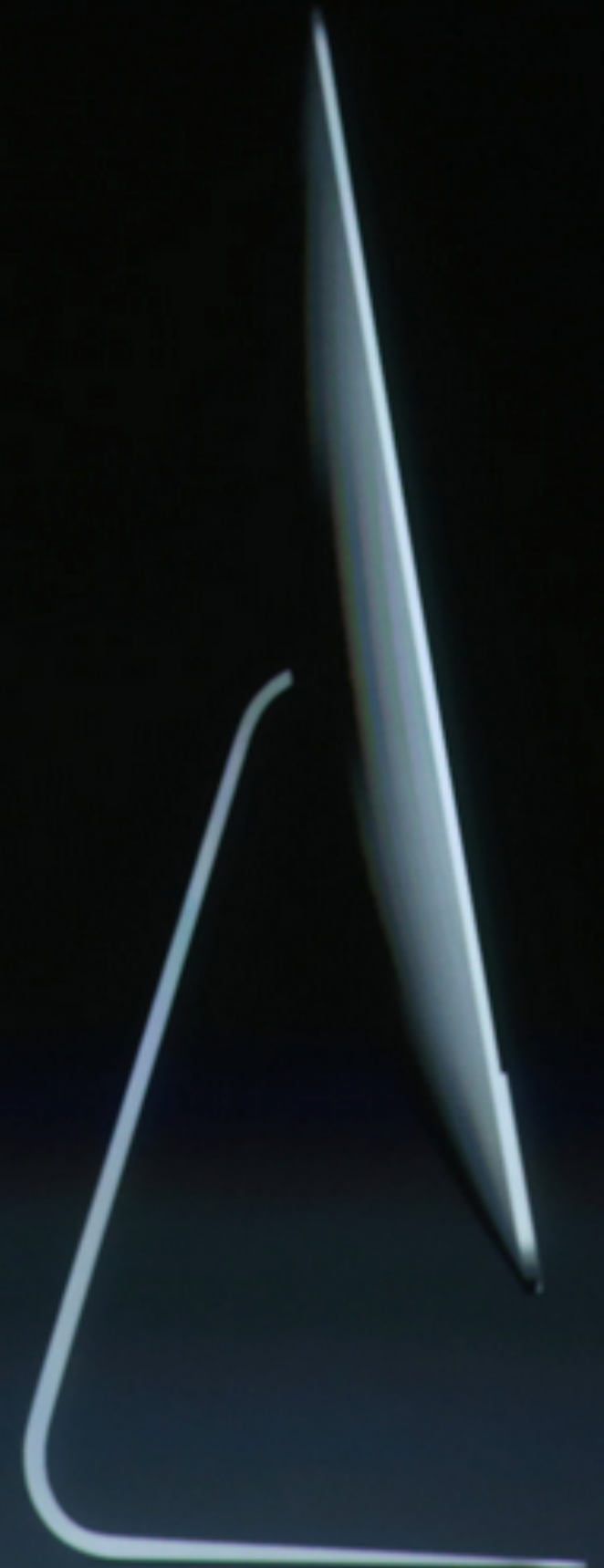
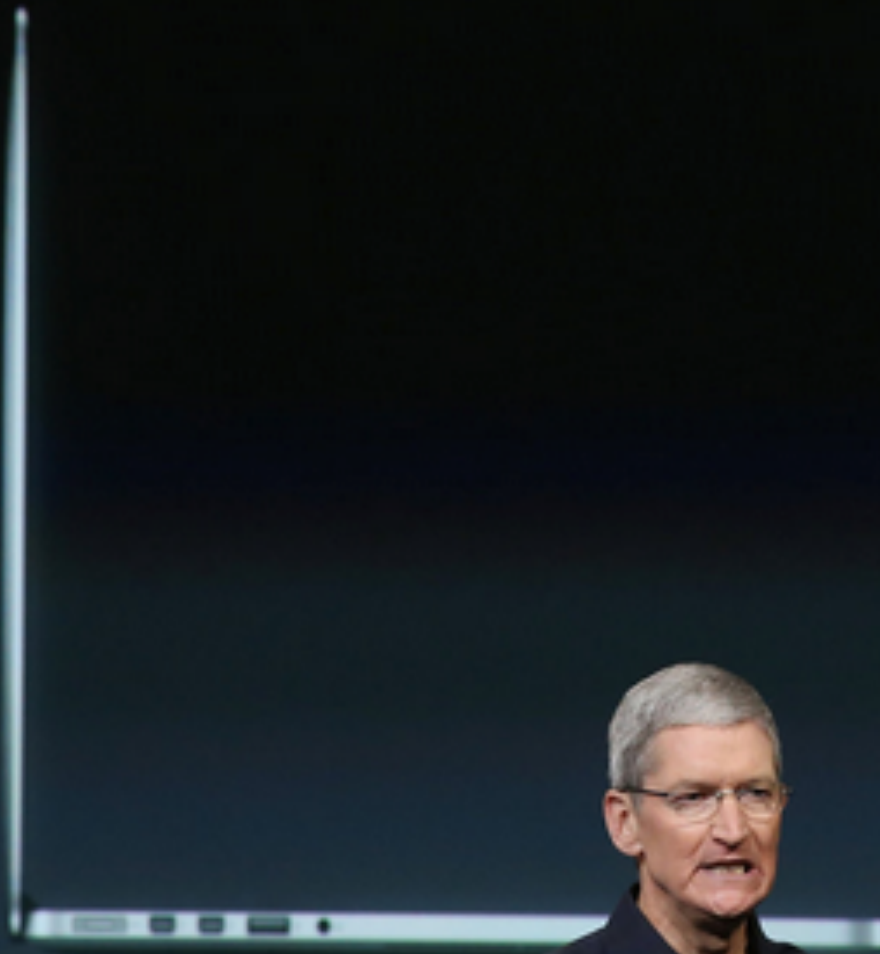
The design of the device is ultimately less important than the ability of other systems to accommodate it.

For most players, this is still several years off.



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than the ability of other systems to accommodate it.

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The Disney MyMagic+ System:

“We basically spent a billion dollars to make a device that doesn’t do anything.”

10

DESIGN DATA &

BEHAVIOR,

NOT SCREENS.

Wearables are ideal for collecting personal information and providing instant, actionable feedback.

This makes human behavior a design problem, and data design a key usability issue.



01 Purpose-led beats technology-led.

02 If access isn't immediate, what's the point?

03 Body real estate is limited and highly visible.

04 Anything close to your body defines your identity.

05 The fashion industry won't save us.

06 Interface should be as light as possible, but no lighter.

07 All wearables have a long social acceptance curve.

08 The greatest potential is outside the consumer market.

09 The device matters less than what's around it.

10 Design data & behavior, not screens.

thank
you.

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