



ADC²⁴ Bristol

OUR ULTRA-PROCESSED INTERFACES

WHAT MUSIC TECHNOLOGY CAN LEARN FROM DORITOS

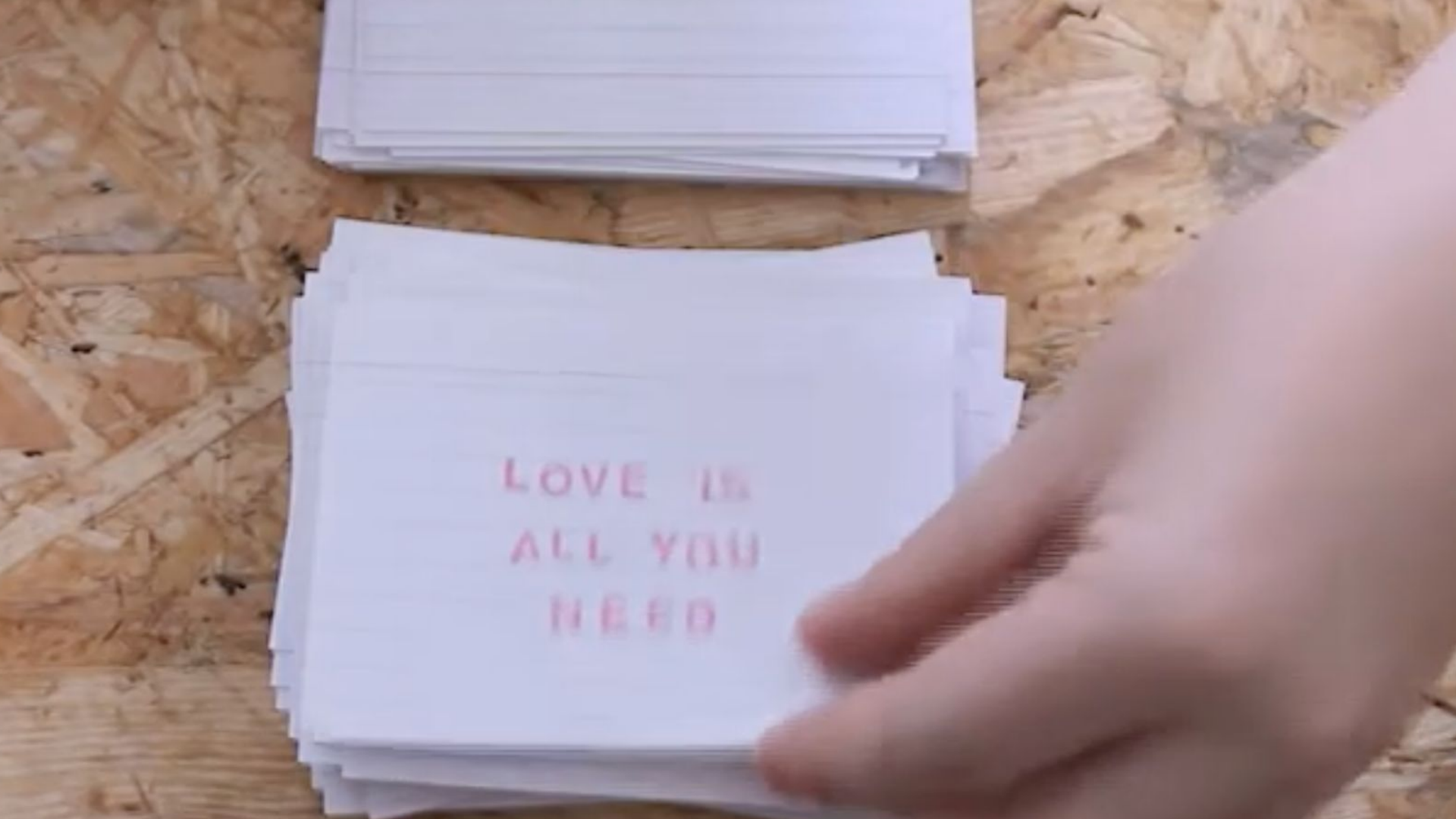
ASTRID BIN

Hello, I'm Astrid



“What are you doing at a developer conference?”

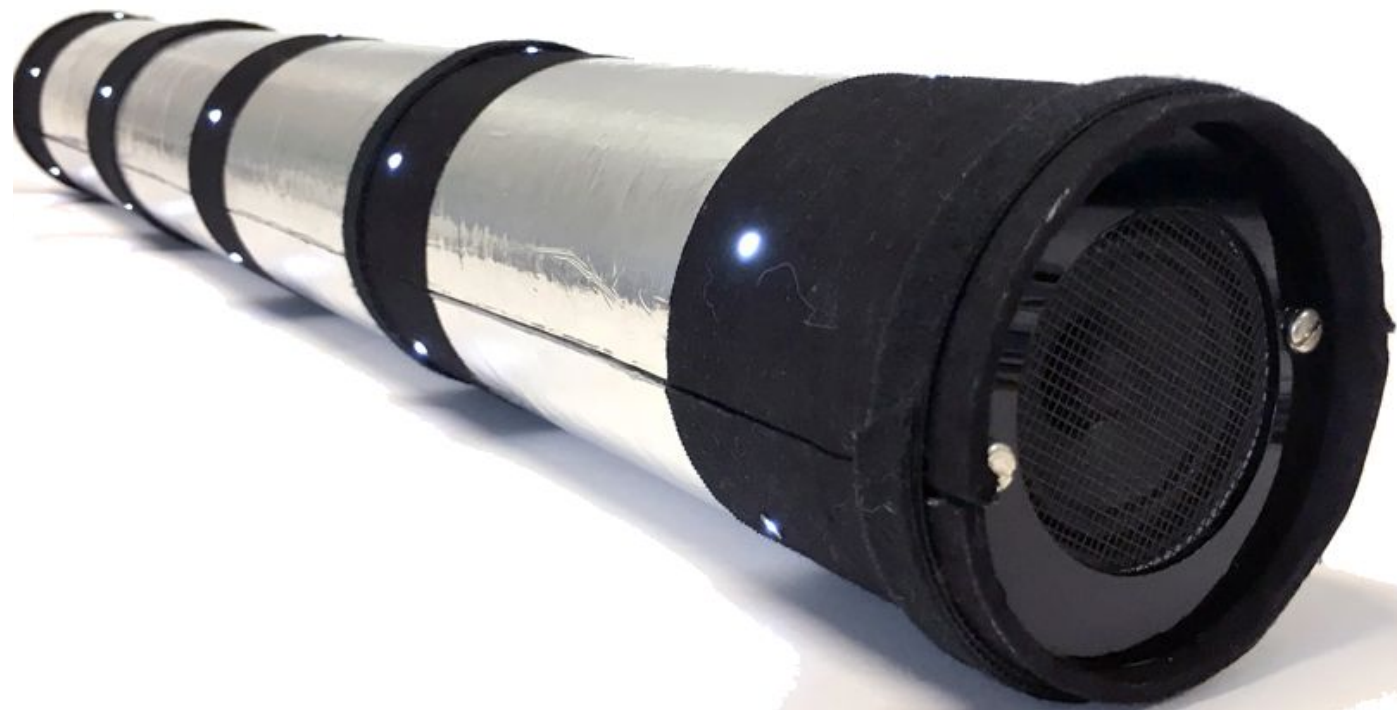


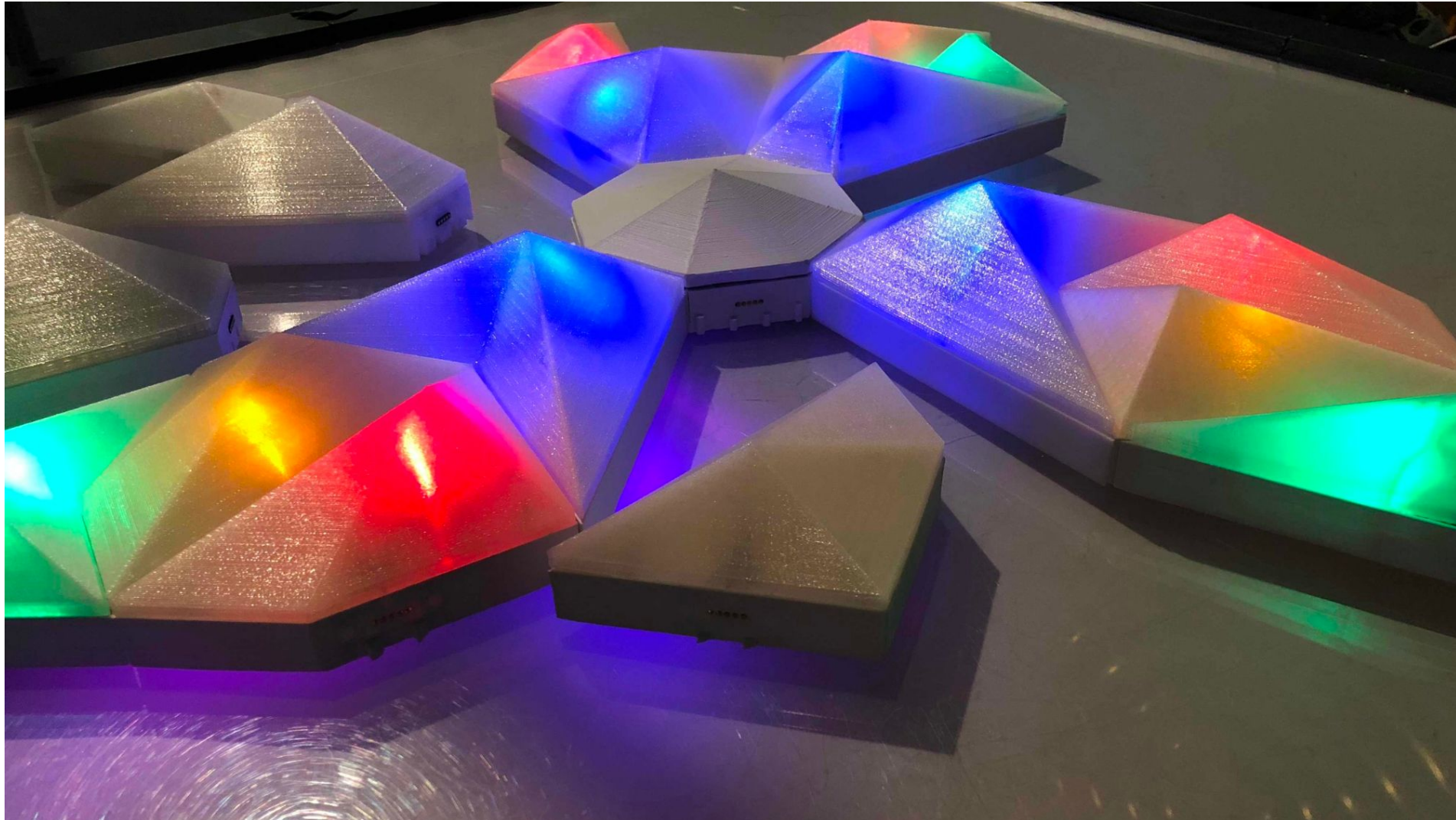
A close-up photograph of a hand holding a stack of white cards. The cards are resting on a light-colored wooden surface with a visible grain. The top card in the stack has the words "LOVE IS ALL YOU NEED" printed in a red, sans-serif font, arranged in three lines. The hand is positioned on the right side of the frame, with fingers gripping the edge of the cards. Another stack of similar white cards is visible in the upper left background.

LOVE IS
ALL YOU
NEED











bela

bela.io



|||≡ Ableton



belā

belā.io

What this talk is about:

What this talk is about:

The cultural language of musical interfaces

What this talk is about:

**(or, how musical interfaces are like
Doritos)**

—

- What are the patterns in the design of musical interfaces?
- Why do these patterns exist?
- What digital musical interfaces and Doritos have in common

Part 1:

Patterns

DAW patterns

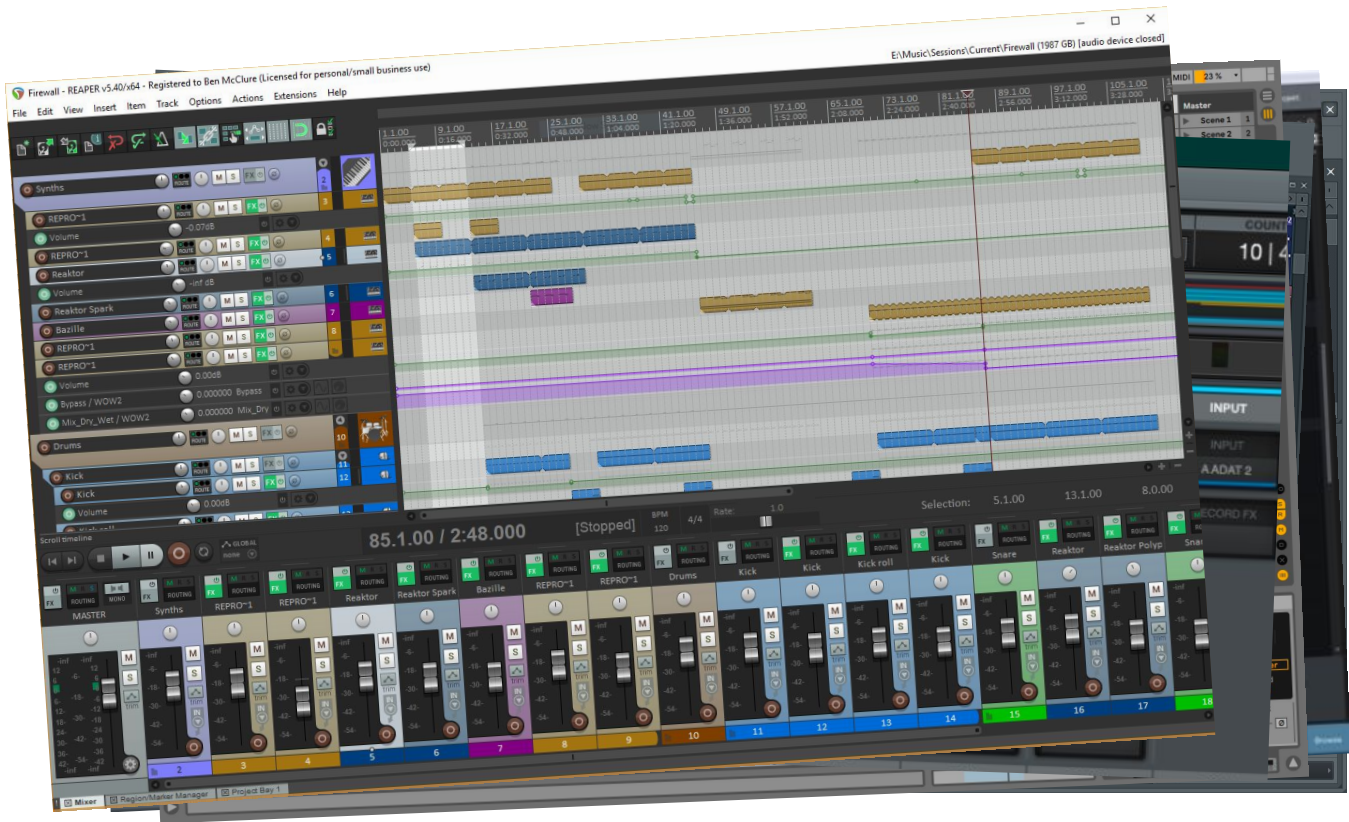


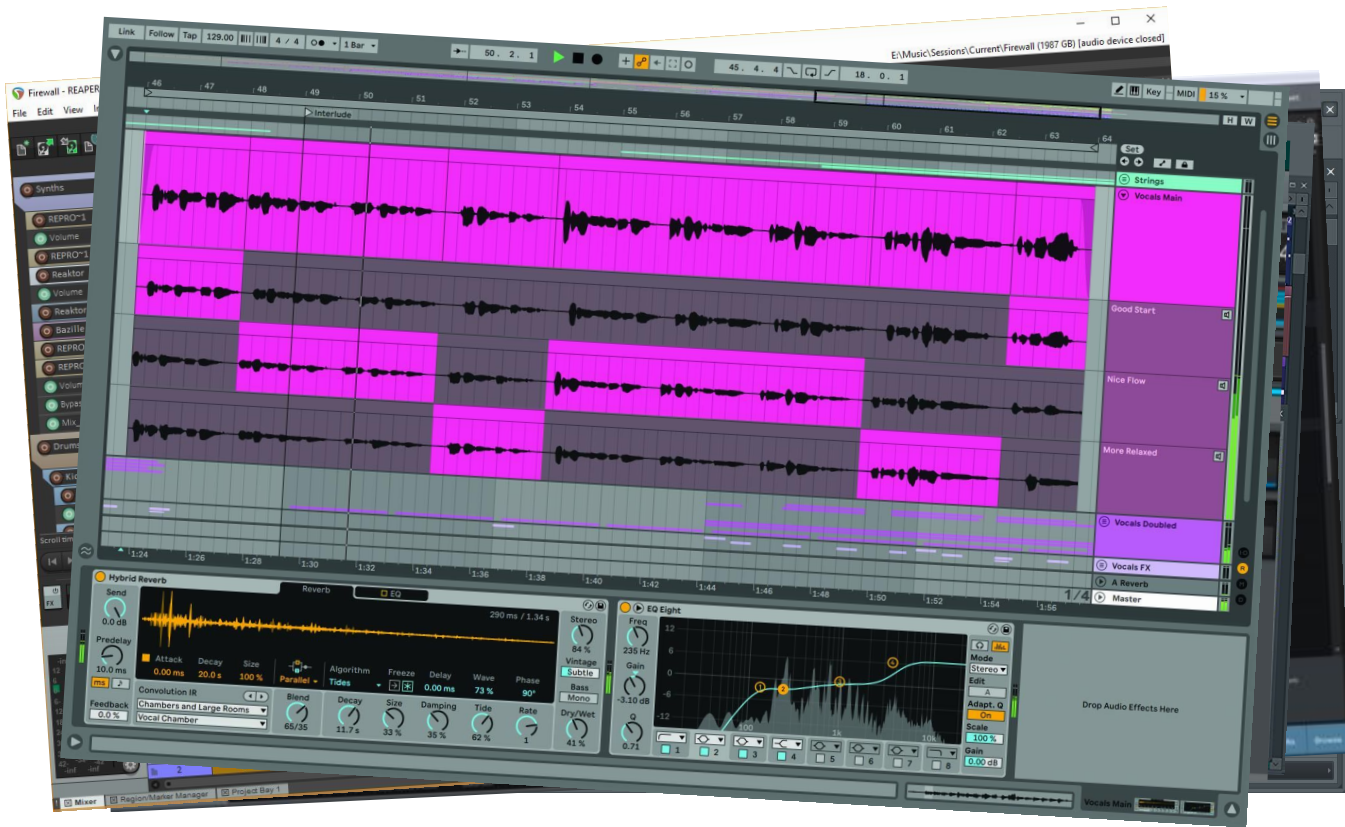














Concerto

File Edit Select View Transport Tracks Generate Effect Analyze Help

Microphone (Realtek High Defini) 2 (Stereo) Recording Channels

Speakers (Realtek High Definiti)

Audio Track

Mute Solo

L R

Stereo, 44100Hz
32-bit float

Label Track

Track 1

Track 2

Project Rate (Hz): 44100

Snap-To: Off

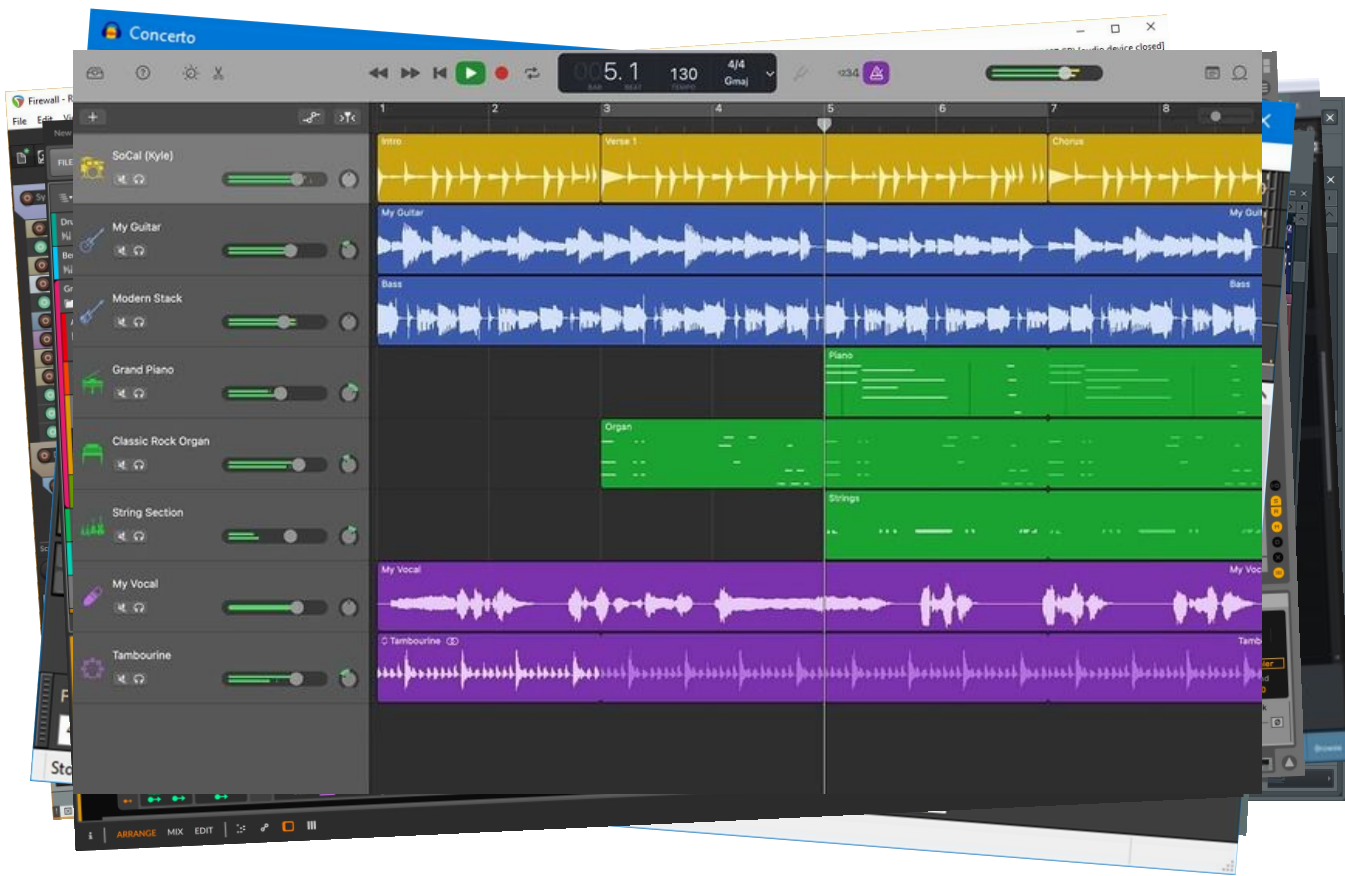
Audio Position: 00 h 02 m 23.653 s

Start and End of Selection: 00 h 02 m 23.653 s 00 h 02 m 36.776 s

Stopped.

The screenshot shows the Concerto audio software interface. At the top, there's a menu bar with options like File, Edit, Select, View, Transport, Tracks, Generate, Effect, Analyze, and Help. Below the menu is a control panel with various icons for recording, playback, and editing. The main area displays a waveform for a stereo recording from a microphone. The waveform is orange and shows a complex signal over time. The interface also includes track settings, such as Mute and Solo buttons, and a timeline at the bottom showing the current audio position and selection range.







Controllers!















Keyboards!

















“Hey Midjourney,
show me a midi controller”

















(I need a better strategy)

“A MIDI controller made of stone”



“A MIDI controller made of clay”



“A MIDI controller made of wood”



“A MIDI controller made entirely of feathers”



“A MIDI controller made entirely of lettuce”



What if I add a cultural cue?

New York!

New York!



London !

London!



Sao Paulo !

Sao Paulo!



Shanghai !

Shanghai!



Berlin !

Berlin!



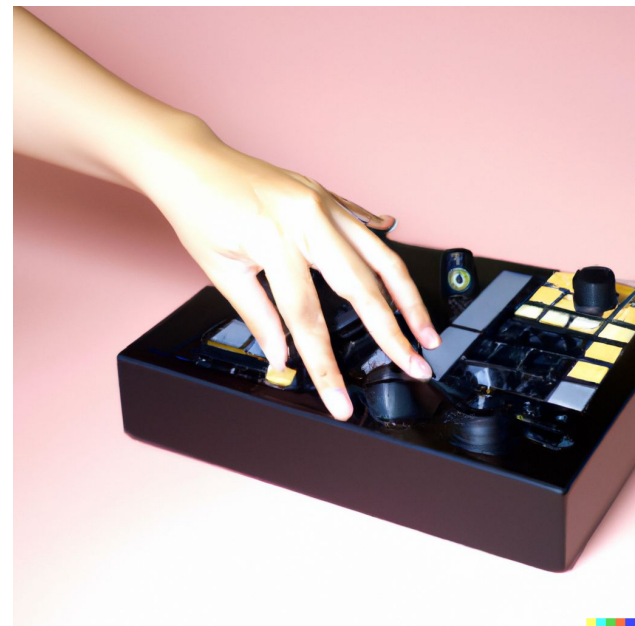
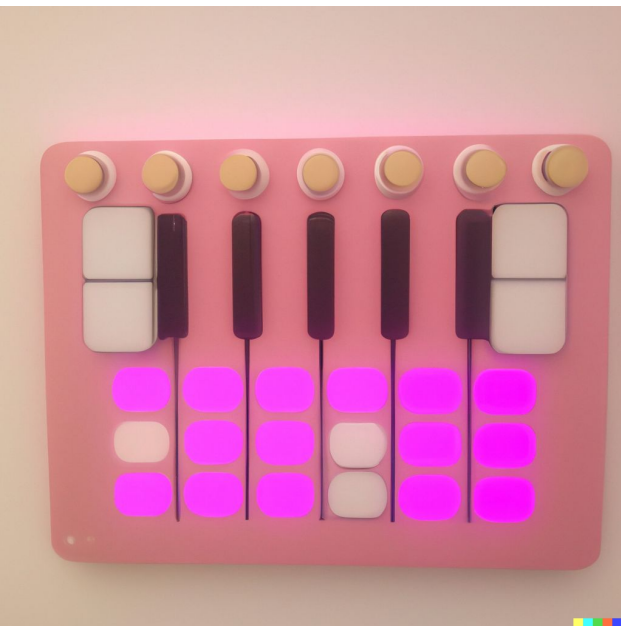
Nairobi !

Nairobi!



For girls !

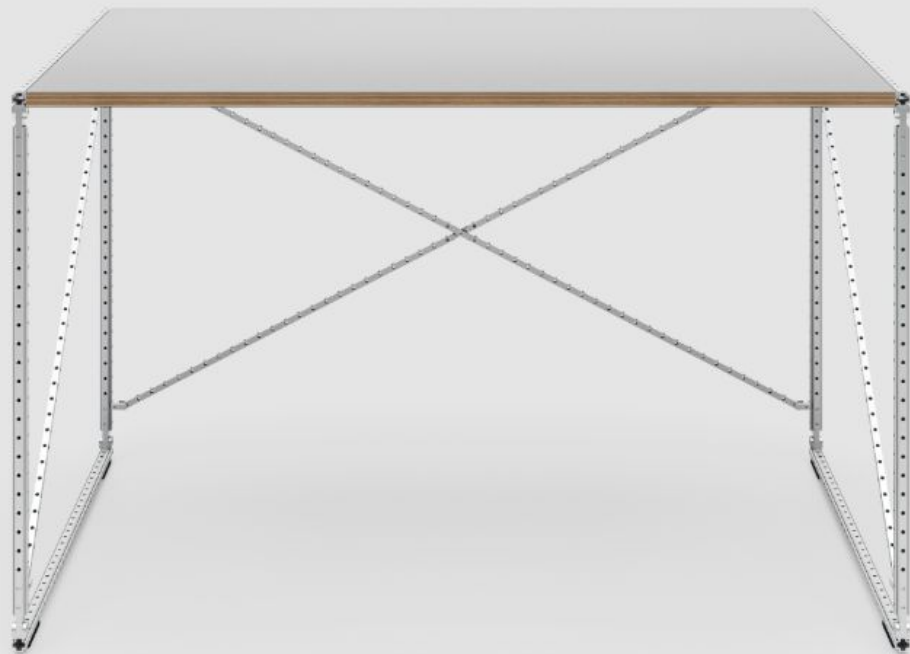
For girls!



Patterns

•
•

- Grey/black ground
- Glowing RGB colours
- Grid layout
- Square/rectangular buttons
- Knobs
- Lots of piano-based interfaces
- Everything sits on a table
- There's an assumption there is a table





Part 2:

Why they look this way

Hegemony & Money



Reason 1:
Hegemony.

Hegemon

y

The dominance
of one structure
of power over
another

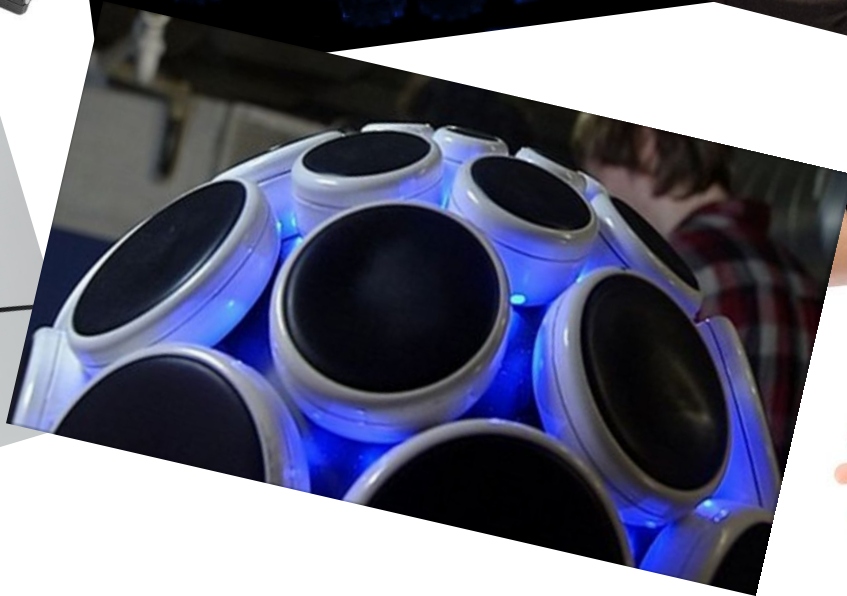
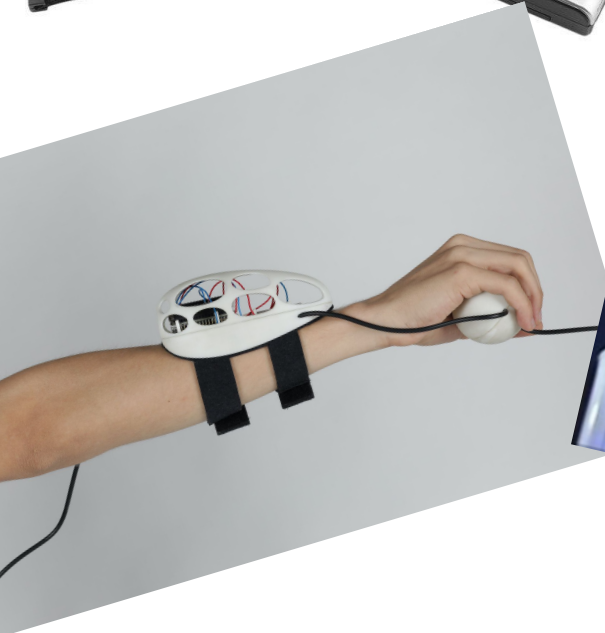
Hegemony

The dominance of one structure of power over another

- The piano keyboard was one of the earliest interfaces applied to modular synths
- Influential manufacturers like grids, grey, and glowing rectangles
- Computer interfaces were first commercially developed **by and for** techno musicians

“Minimal techno is
Berlin folk music.”

—*David Pocknee*





Reason 2:

Money (it sells).

Why does it sell?

Interface Sound



Sound depends on:

- Shape
- Size
- Material
- Way of playing



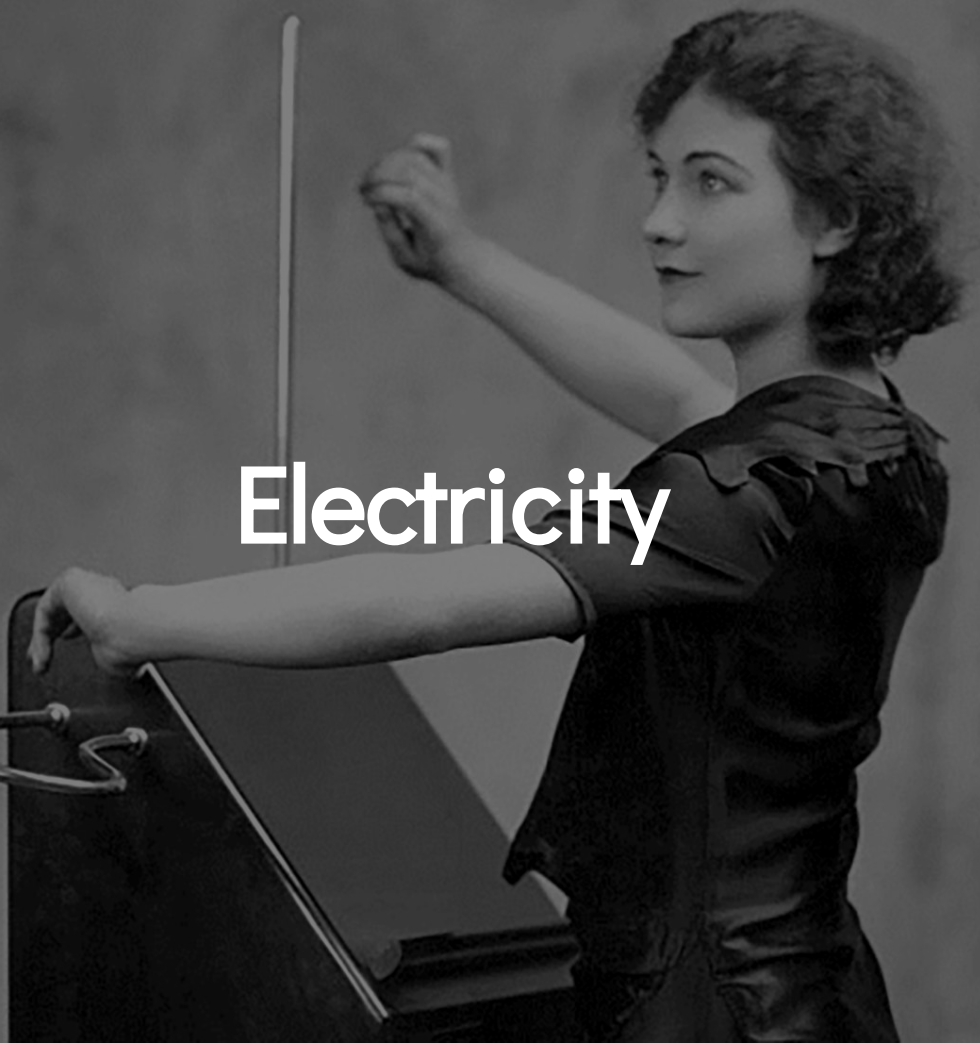








Electricity



Interface
Sound

A vertical red line is positioned in the center of the image, extending from the top of the word 'Interface' down to the bottom of the word 'Sound', passing through the middle of both words.

Control dislocation

The instrument's size, shape, materials, and the way it's played are entirely separate from the sound it creates.

**There's no physical parameters
that can guide what an interface
should look like.**

So, we base expectations on:

So, we base expectations on:

- What's "always been done" (in the last 30ish years, by a small number of people)
- What's commercially available

It sells because we have come to attach
our expectations of instruments
**to these commercial
conventions.**



**Does what things look like
really matter?**





Cultural context matters.
Materials communicate culture.





Part 3:

Why musical interfaces are like Doritos



Food is:

- Community
- Love
- Socialising
- Exploration
- Creative
- Tradition
- History
- Culture
- Expression
- Connection
- Seasonal
- About what surrounds us
- Connecting with the past
- Technical

Music is:

- Community
- Love
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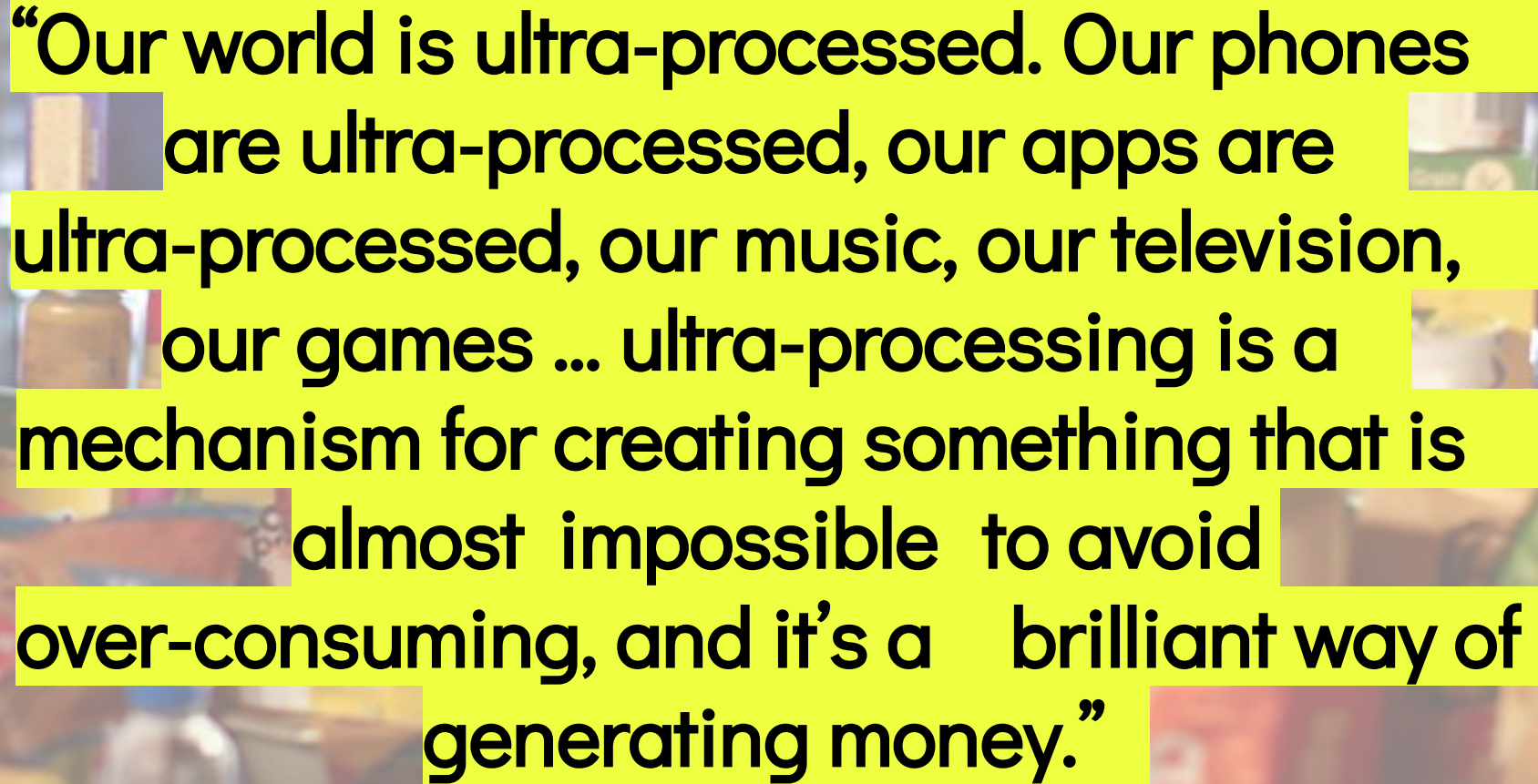
Music and food are also:

- Complex
- Difficult
- Time-consuming
- Non-linear
- Mentally demanding
- Requires a lot of learning
- Creatively taxing
- Overwhelming

**A lot of innovation has occurred to
make a complicated process
easier.**



Dr Chris van Tulleken



“Our world is ultra-processed. Our phones are ultra-processed, our apps are ultra-processed, our music, our television, our games ... ultra-processing is a mechanism for creating something that is almost impossible to avoid over-consuming, and it’s a brilliant way of generating money.”

Ultra processed food:

- Has natural ingredients imported, industrially processed, changed, added back in
- Is devoid of any personal, cultural, social connection, but
- **Simulates culture** by adding industrially-processed ingredients



Oy veren
günlük 100 KONTÖR!

3. SİNE
OY
VEREN

Doritos

HİSSELİ TATLAR KAMPANYASI FİNALİSTİ



Hadi Gari • Haydari çeşnili

Hazar İyiduvar'ın
fikri







Doritos

COOL AMERICAN



Smakely Cool / Flavour

Dit zakje bevat / Ce sachet contient

Energie	Suikert aantal	Vet / Lipide	Steviolgly sij / Stevia	Koffiein aantal
224 kJ 54	1.5g	12g	1.3g	0.3g
11%	2%	12%	1.3%	0.3%

新製法

FritoLay

ドリス・エア

Doritos
BRAND
Air

味のイメージ
写真

香ばしバター味

特許出願中

“Ultra-processed”:

A product that is engineered, designed, and/or augmented with the goal of over-consumption for the primary goal of profit



Ultra processed food:

... is engineered to operate on and produce feelings of:

- Nostalgia
- Familiarity

Doritos

BRAND

TORTILLA CHIPS

NACHO CHEESE FLAVOR



NET WT.
1 1/2 OZ.
(35.4g)

NO PRESERVATIVES



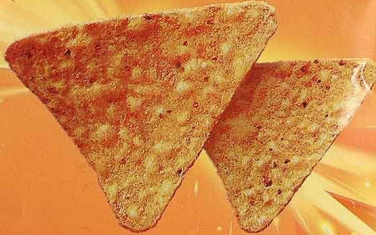
© Frito-Lay, Inc. 1984





Doritos

**TANGY
CHEESE**
FLAVOUR CORN CHIPS



Each 30g serving contains:

	Fat	Saturates	Sugars	Salt
7.8g	1.0g	0.8g		0.36g
11%*	5%*	<1%*		6%*

Energy per 100g: 2092kJ 501kcal

70g e

**Doritos are
delicious**

**How this relates to
instruments**

Instruments have always been
“processed”







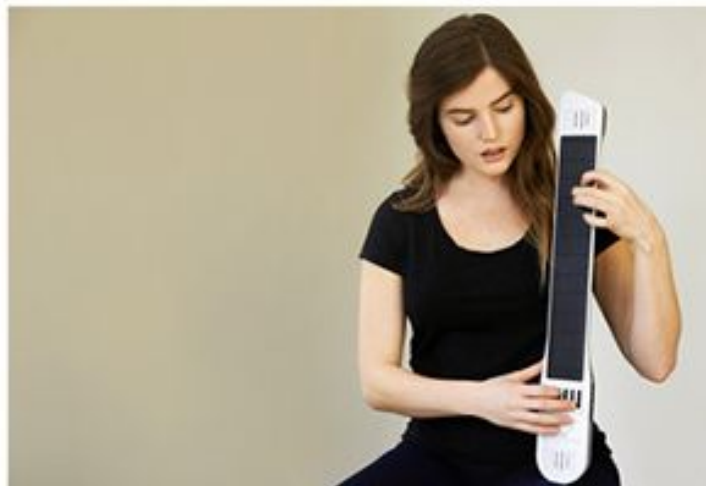




What might make an instrument
“ultra-processed”?

**Borrowing playing
interactions from other
instruments**

**Using materials that
have nothing to do
with any culture,
anywhere**



**Framing music as a
“problem” to be solved**



**Presenting musical
interfaces as primarily
a lifestyle choice**



**Output is primarily
imitation of
well-known pop songs**



Shape Of You

Original by Ed Sheeran

Some signs of an ultra-processed interface:

- Interactions detached from any cultural context
- Materials that are detached from cultural context
- Music is a “problem”
- Instrument as lifestyle choice (and buy the instrument to have that lifestyle)

Ultra-processed
instruments can
still be useful and
fun



yay



yum



The Takeaways

TAKEAWAY 1:

Ultra-processed interfaces (like ultra-processed food) usually do not meaningfully engage with the social, community, or artistic aspects of music, and/or only represent a tiny sliver of music culture.

How can we add our own?

TAKEAWAY 2:

In the same way that eating too much ultra-processed food can make you feel disconnected from culture and generally gross, ultra-processed interfaces have the potential to do the same thing

TAKEAWAY 3:

Enjoy and eat ultra-processed foods, but be honest with yourself about what they are.

Enjoy and use ultra-processed interfaces, but be honest with yourself about they are.

**Ultra-processed food can
be available, convenient,
and fun.**

**Ultra-processed
interfaces can be
available, convenient,
and fun.**

Consider ...

- **Be critical of what you use and what you buy**
- What are you being sold and why?
- What kinds of music do these tools encourage you to create?
- Hack stuff, add stuff
- Decorate your own stuff
- Centre **culture** , not tools
- Tell companies what you want



Thanks! 🙌

Ultra-processed food is:

- Tasty
- Consistent
- Fast
- Convenient
- Calorie-rich
- Moreish



Nostalgia & comfort
through consistency





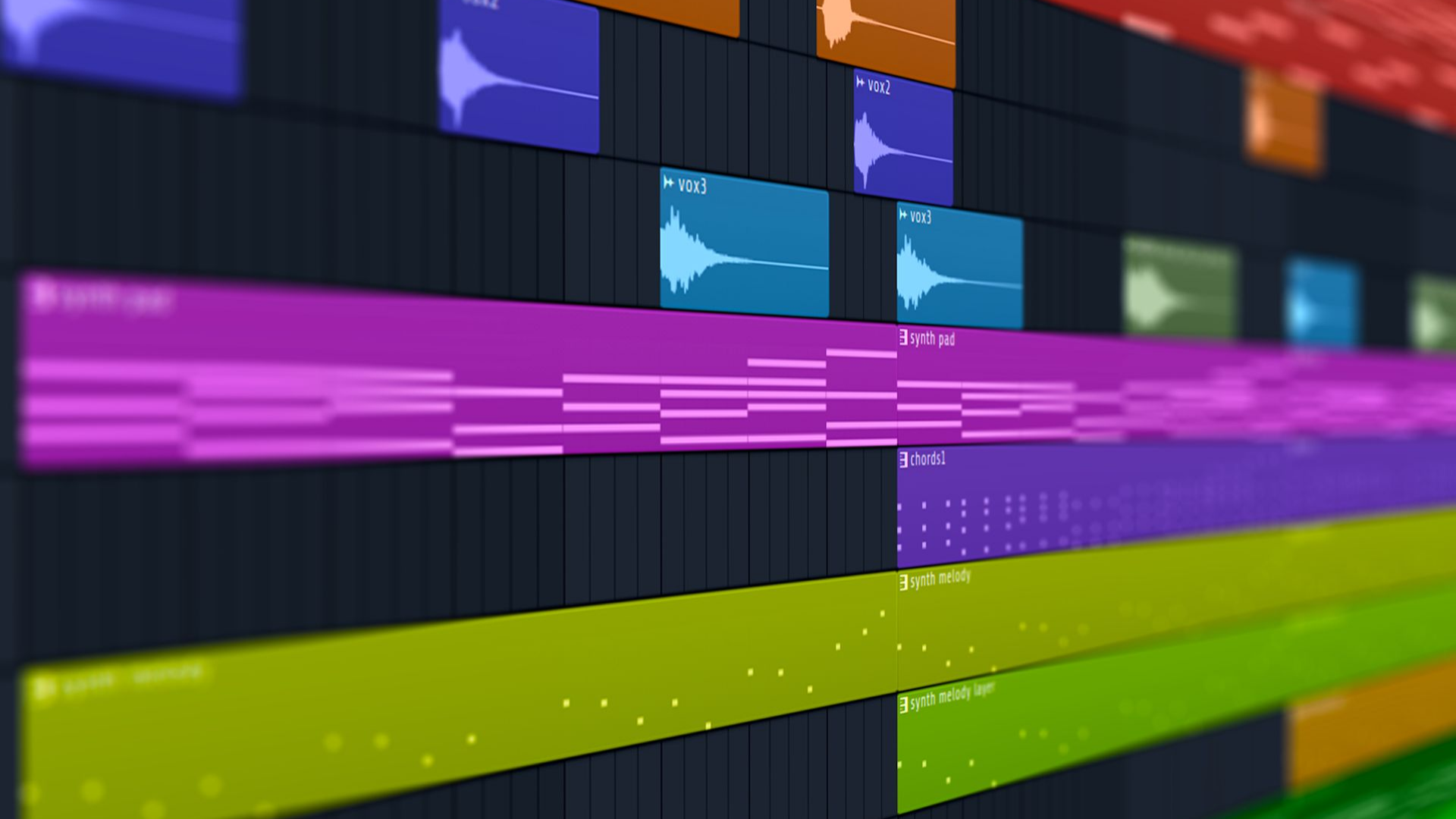
Interface Sound



Interface
Sound

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vox2

vox3

vox3

synth pad

synth pad

chords1

synth melody

synth melody layer

synth melody layer

“Any sound you can imagine”

“Anyone can play music”

“No talent required”

Import, edit, make your own remix



Music is:

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Music is:

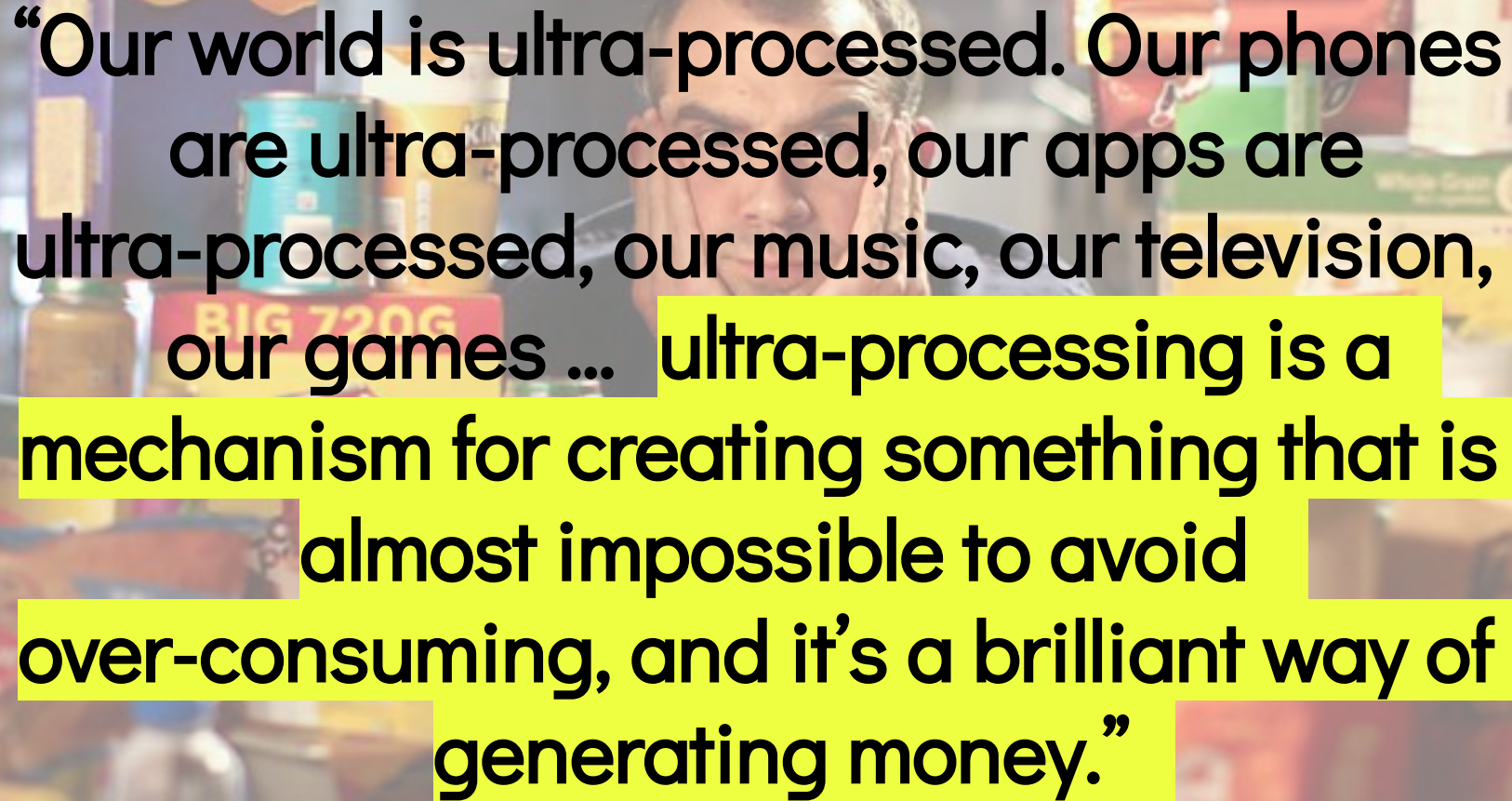
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Music is also:

- Complex
- Difficult
- Time-consuming
- Non-linear
- Mentally demanding
- Requires a lot of learning
- Creatively taxing
- Overwhelming

A collage of various international banknotes, including Philippine, US, and Chinese currency, arranged in a grid-like pattern. The notes are of different colors and denominations, creating a vibrant and textured background. A prominent yellow banner with black text is overlaid across the center of the image.

Problems to be solved

A man with a distressed expression, his hands pressed against his face, stands in a grocery store aisle. He is surrounded by shelves of various products, including a 'FAMILY PACK' of cereal, a 'BIG 720G' container, and a 'White Guard' product. The scene is brightly lit, typical of a supermarket.

“Our world is ultra-processed. Our phones are ultra-processed, our apps are ultra-processed, our music, our television, our games ... ultra-processing is a mechanism for creating something that is almost impossible to avoid over-consuming, and it’s a brilliant way of generating money.”

Part 3:

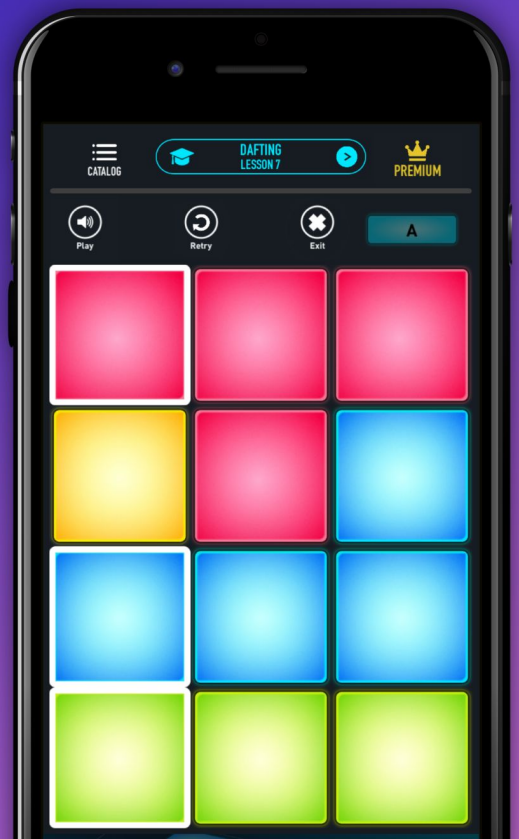
**Exploring an ultra-processed
interface**



BEATMAKER PRO.



MAKE BEATS ON THE GO!





Modern Hip-Hop

Lessons

FX

Effects



Record



STOP

A B

Side



Beat



Beat



Synth



Whistle



Beat



Beat



Choir



Synth



Keys



Mallets



Bass



Pad



Strings



Pluck



Synth



Brass



Fx



Vox



Vox



Vox



Fx



Vox



Vox



Vox



Modern Hip-Hop

Lessons

FX

Effects

Record

STOP

A B

Side

FX ON	Beat	Beat	Synth	Whistle	FX ON
	Beat	Beat	Choir	Synth	
FX ON	Keys	Mallets	Bass	Pad	FX OFF
	Strings	Pluck	Synth	Brass	
FX ON	Fx	Vox	Vox	Vox	FX ON
	Fx	Vox	Vox	Vox	

Filter

Flanger

Reverb

Delay



Hold



Dafting 5



1. Listen



2. Play



TEMU 4.7 ★

INSTALL

Dafting 5

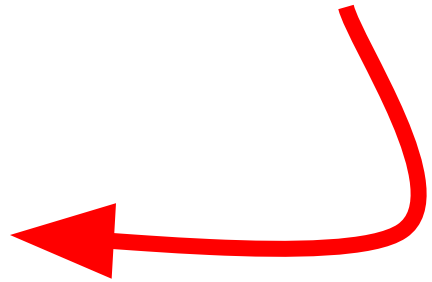
1. Listen 2. Play

START		

TEMU

Temu 4.7 ★

INSTALL



5 / 10



99%

PERFECT x 6

GOOD x 2

EARLY x 0

LATE x 0

MISS x 0

NEXT



RETRY



BACK TO CATALOG

You unlocked
a new trophy!



Star Killer

Collect 15 stars

CONTINUE >



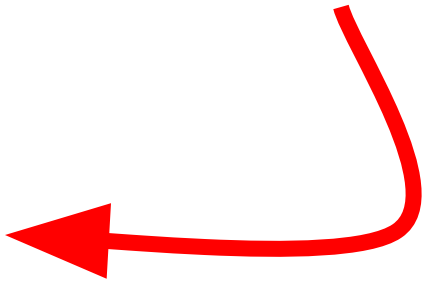
▶▶

DRAGON CITY

Not representative of the game

Install





My Music

 Recently Played 

My Records

It's time to create your
first record



Modern Hip-Hop
Phenom



Main



My Music



More



NO ADS

Free pack of the day

Play it for free today

06 : 15 : 12



Unlock a premium pack!

Complete all lessons of a sound pack

ACCEPT CHALLENGE >

NO THANKS

Unity
TheFatRat

Shape Of You
Original by Ed Sheeran

Roses (I
Original by



Daft Punk

daft punk



Career



Catalog



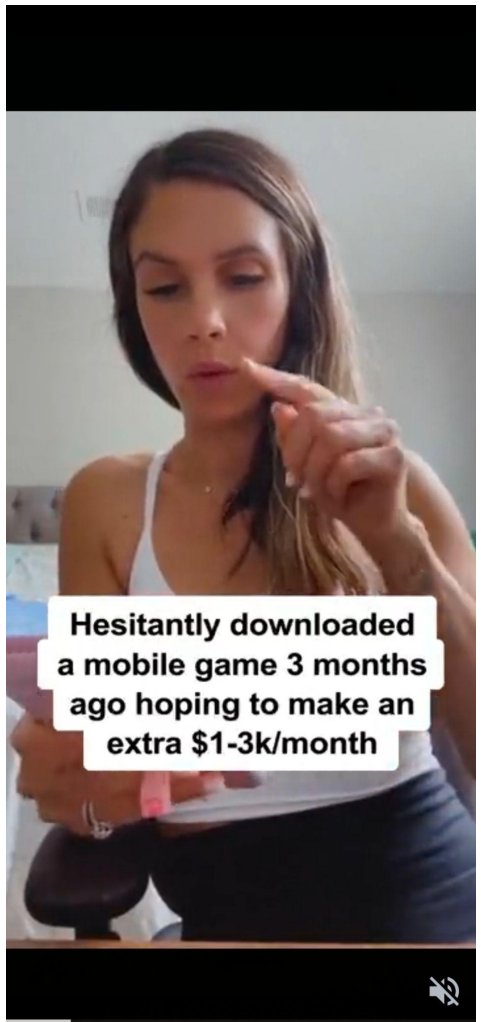
My music



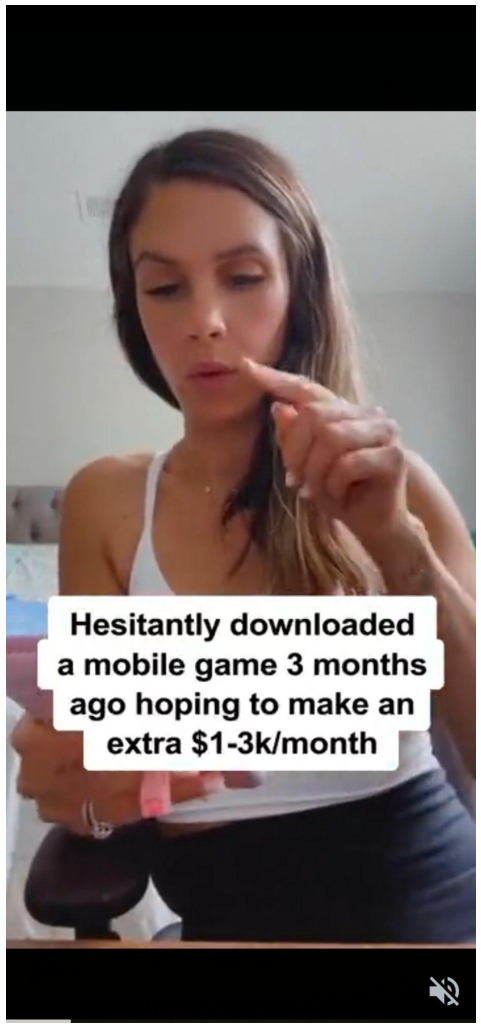
Progress



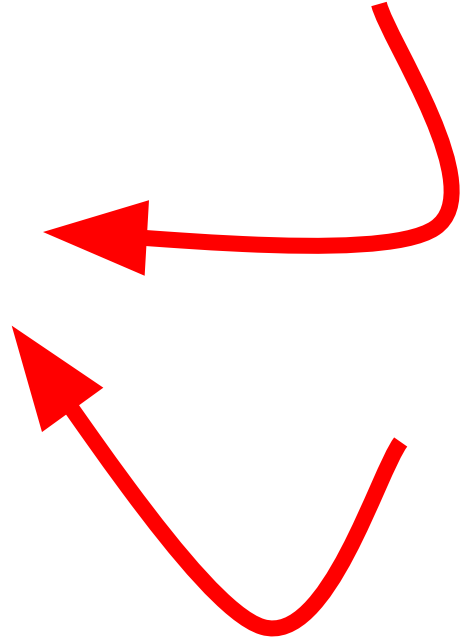
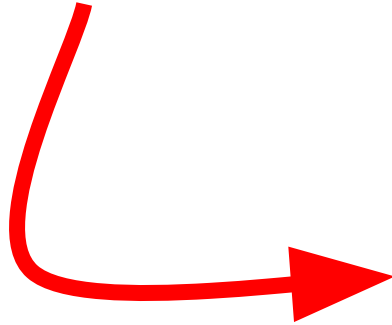
Settings



**Hesitantly downloaded
a mobile game 3 months
ago hoping to make an
extra \$1-3k/month**



**Hesitantly downloaded
a mobile game 3 months
ago hoping to make an
extra \$1-3k/month**





Shape Of You

Original by Ed Sheeran

Loading...



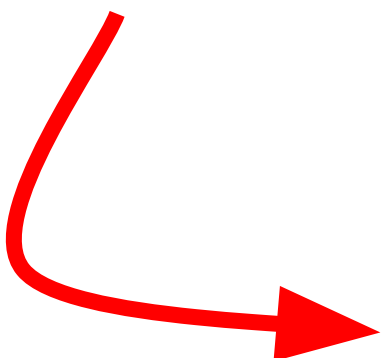
Shape Of You 1



1. Listen

2. Play

Red square	Red square	Red square
Dark blue square	Red square with 'TAP' icon	Dark blue square
Dark blue square	Dark blue square	Dark blue square
Dark blue square	Dark blue square	Dark blue square



holbornvenues.co.uk
Rooms For Hire From 2-400

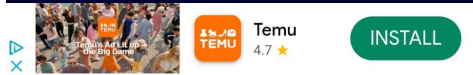
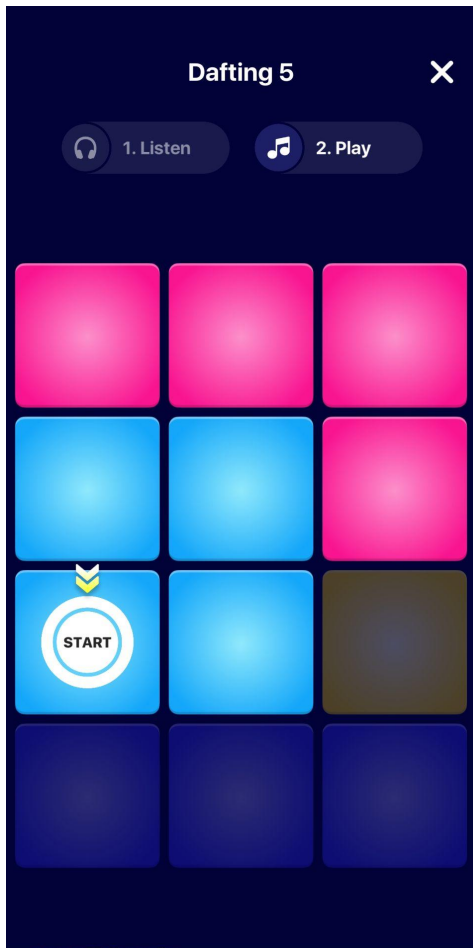
OPEN >

Nostalgia & comfort
through consistency



Shape Of You

Original by Ed Sheeran



TAKEAWAY 1:

Ultra-processed interfaces (like ultra-processed food) are not about social, community, or artistic aspects of music.

However, nostalgia and consistency play an important role.

TAKEAWAY 2:

In the same way that eating too much ultra-processed food makes you feel terrible, ultra-processed interfaces also make you feel terrible.

TAKEAWAY 3:

It's fine to make/eat/enjoy ultra-processed food, but be honest with yourself about what it is.

It's fine to make/use/enjoy an ultra-processed interfaces, but be honest with yourself about they are.



Thanks!