THE PRELUDE FROM...

ARTFUL DESIGN
TECHNOLOGY IN SEARCH OF THE SUBLIME

A MUSICOMIC MANIFESTO!

GE WANG

https://artful.design/
WHAT WE MAKE, MAKES US.
We are here, and the time is now...

Hi there! I'm GE!*

I am a designer and a computer music researcher.

*I pronounced "Guh"

C'mon in!

This is a manifesto on the artful design of technology... a meditation on the nature, purpose, and meaning of design.

We will use computer music design as our lens, but the principles of artful design can be applied to any domain.

Hello, world!
I'm a professor at Stanford University, in the Center for Computer Research in Music and Acoustics, or CCRMA.*

*I pronounced "KARMA"

I work with technology to connect people and musical expression...

...and use design to bind together technology and art, engineering and the humanities.

There is an art to design.

I design by writing code.

I create new tools -- like CHUCK, a music programming language...

To synthesize new sounds and experiment with musical interactions.

I design sound and graphics in tandem.

I create tools, toys, instruments, and experiences.
I build new interfaces for musical expression...

...combining sound design and interaction design.

I invent new instruments that we don't have names for -- and that often defy classification!

We use these instruments to craft performances for laptop ensembles...

...like Slork, the Stanford Laptop Orchestra!
I design apps to transform mobile devices...

...into expressive musical instruments...

...to be played by anyone...

...novices and pros.

In 2008, I co-founded a mobile music startup called Smule...

...and designed Ocarina for the iPhone.

How to play:
Hold the phone as you might a sandwich.
Blow into the microphone to play.
Use multitouch to control pitch.
Tilt the phone down to add vibrato.

I served as Chief Creative Officer and CTO during our early years, until I stepped down in 2013.
Within that time, I also designed Ocarina 2, Magic Piano, and other music-making artifacts.

These games, toys, instruments have reached more than 200 million users.
There is another dimension to artful design: a social fabric that connects us in new, expressive ways.

In Ocarina, you can listen to other people playing from all corners of the world.

Amazing Grace is a global favorite.

Listening to the world can make you feel both alone and connected at the same time.

This is design as experience, visceral and human...

...a small feeling that there is someone, somewhere out there... and that we are more alike than different.

This kind of design would not be possible without technology...

...yet hopefully the user never notices the technology.

Reflecting something of our nature, technology pushes forward, always changing, ever evolving.

It is artful design -- how we make use of technology -- that is our constant, design should understand something of our needs, dreams, fears, it should enrich our lives, reinforce our humanity, design should make us feel.

No matter your walk of life or what you think about technology or art, and no matter our differences, I invite you to venture into a realm where technology meets the intangible...

A realm of...
This work would not be possible, as it is, without support from the Guggenheim Foundation, as well as Stanford University’s School of Humanities and Sciences and School of Engineering, nor would it have been as rich without Creative Commons and the folks who shared through it. Please see Acknowledgments and Image Credits at the conclusion of this book for more information.

© 2018 by Ge Wang. All rights reserved.

No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or in any information storage or retrieval system, without the prior written permission of Stanford University Press.

Cataloging-in-Publication Data is available at the Library of Congress.

ISBN 978-1-5036-0803-0 (ebook)
In our age of rapidly evolving technology and unyielding human restlessness and discord, design ought to be more than simply functional; it should be expressive, socially meaningful, and humanistic. Design should transcend the purely technological, encompass the human, and strive for the sublime.

Sublime design presents itself, first and last, as a useful thing, but nestled within that window of interaction lies the novel articulation of a thought, an idea, a reflection—an invisible truth that speaks to us, intimate yet universal, purposeful without necessity of purpose, that leaves us playful, understood, elevated. It is a transformation so subtle that it escapes our conscious grasp but that once experienced—like music—we would never want to be without again.

Design should be artful.
https://artful.design/
WHAT WE MAKE, MAKES US.
we are here, and the time is now...

Hi there! I'm GE!*

I am a designer and a computer music researcher.

*C'mon in!

*pronounced "guh"

We will use computer music design as our lens, but the principles of artful design can be applied to any domain.

This is a manifesto on the artful design of technology... a meditation on the nature, purpose, and meaning of design.

Hello, world!
I CREATE TOOLS, TOYS, INSTRUMENTS, AND EXPERIENCES.

I WORK WITH TECHNOLOGY TO CONNECT PEOPLE AND MUSICAL EXPRESSION.

...AND USE DESIGN TO BIND TOGETHER TECHNOLOGY AND ART, ENGINEERING AND THE HUMANITIES.

*pronounced "karma"

I'm a professor at Stanford University, in the Center for Computer Research in Music and Acoustics, or CCRMA.

I design by writing code.

...To synthesize new sounds and experiment with musical interactions.

// our radius
.99999 => float R;
// our delay order
S00 => float L;
// set delay
L::smp => delay.delay;
// set dissipation factor
Math.pow(R, L) => delay.gain;
// place zero
-1 => lowpass.zero;

// fire excitation
1 => imp.gain;
// for one delay round
L::smp => now;
// cease fire
0 => imp.gain;

...There is an art to design.

I CREATE NEW TOOLS -- LIKE CHUCK, A MUSIC PROGRAMMING LANGUAGE...

I DESIGN SOUND AND GRAPHICS IN TANDEM.
I build new interfaces for musical expression...

...combining sound design and interaction design.

I invent new instruments that we don't have names for -- and that often defy classification!

We use these instruments to craft performances for laptop ensembles...

...like SLORK, the Stanford Laptop Orchestra!
I design apps to transform mobile devices...

...into expressive musical instruments...

...to be played by anyone...

I served as chief creative officer and CTO during our early years, until I stepped down in 2013. Within that time, I also designed Ocarina 2, Magic Piano, and other music-making artifacts.

In 2008, I co-founded a mobile music startup called Smule...

...and designed Ocarina for the iPhone.

How to play:

Hold the phone as you might a sandwich. Blow into the microphone to play. Use multitouch to control pitch. Tilt the phone down to add vibrato.

These games, toys, instruments have reached more than 200 million users.

...novices and pros.
There is another dimension to artful design: a social fabric that connects us in new, expressive ways.

This is design as experience, visceral and human...

...a small feeling that there is someone, somewhere out there... and that we are more alike than different.

No matter your walk of life or what you think about technology or art, and no matter our differences, I invite you to venture into a realm where technology meets the intangible...

...yet hopefully the user never notices the technology.

"Amazing Grace" is a global favorite.

"Silent Night.

"Ocarina," you can listen to other people playing from all corners of the world.

Listening to the world can make you feel both alone and connected at the same time.

Reflecting something of our nature, technology pushes forward, always changing, ever evolving.

It is artful design -- how we make use of technology -- that is our constant. Design should understand something of our needs, dreams, fears. It should enrich our lives, reinforce our humanity. Design should make us feel.

In Louisiana, someone plays the theme from Legend of Zelda...

...or, from Hawaii, "Silent Night."
This work would not be possible, as it is, without support from the Guggenheim Foundation, as well as Stanford University's School of Humanities and Sciences and School of Engineering, nor would it have been as rich without Creative Commons and the folks who shared through it. Please see Acknowledgments and Image Credits at the conclusion of this book for more information.

Cataloging-in-Publication Data is available at the Library of Congress.

ISBN 978-1-5036-0803-0 (ebook)
MANIFESTO

In our age of rapidly evolving technology and unyielding human restlessness and discord, design ought to be more than simply functional; it should be expressive, socially meaningful, and humanistic. Design should transcend the purely technological, encompass the human, and strive for the sublime.

Sublime design presents itself, first and last, as a useful thing, but nestled within that window of interaction lies the novel articulation of a thought, an idea, a reflection—an invisible truth that speaks to us, intimate yet universal, purposeful without necessity of purpose, that leaves us playful, understood, elevated. It is a transformation so subtle that it escapes our conscious grasp but that once experienced—like music—we would never want to be without again.

Design should be artful.