
Does your content speak for itself?

Voice content and usability

Preston So (he/him) • June 23, 2021 • Boye and Co. member call

Welcome!

Preston So (he/him) is a product architect and strategist, digital experience futurist, innovation lead, developer advocate, three-time SXSW speaker, and author of [Voice Content and Usability](#) (A Book Apart, 2021), [Gatsby: The Definitive Guide](#) (O'Reilly, 2021), and [Decoupled Drupal in Practice](#) (Apress, 2018).

He has been a programmer since 1999, a web developer and designer since 2001, a creative professional since 2004, a CMS architect since 2007, and a voice designer since 2016.

A product leader at Oracle, Preston has led product, design, engineering, and innovation teams since 2015 at Acquia, Time Inc., and Gatsby. Preston is an editor at [A List Apart](#), a columnist at [CMSWire](#), and a contributor to [Smashing Magazine](#) and has [delivered keynotes](#) around the world in three languages. Preston is based in New York City, where he can often be found immersing himself in languages that are endangered or underserved.

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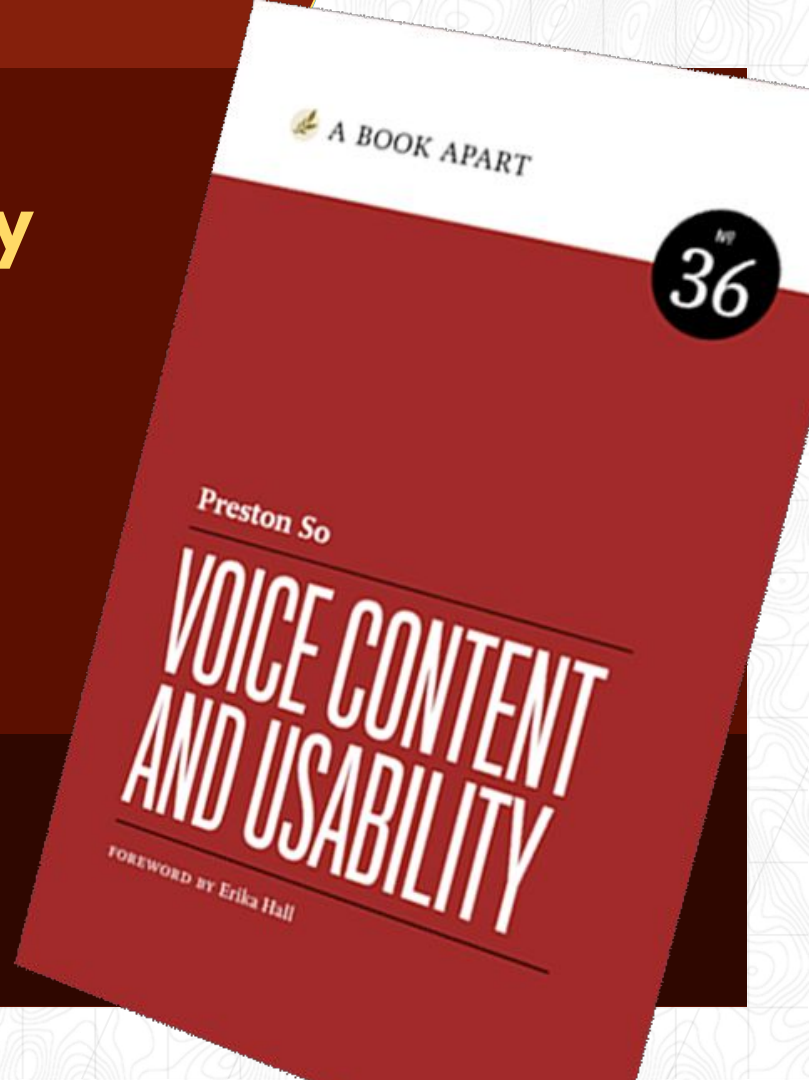
Voice Content and Usability

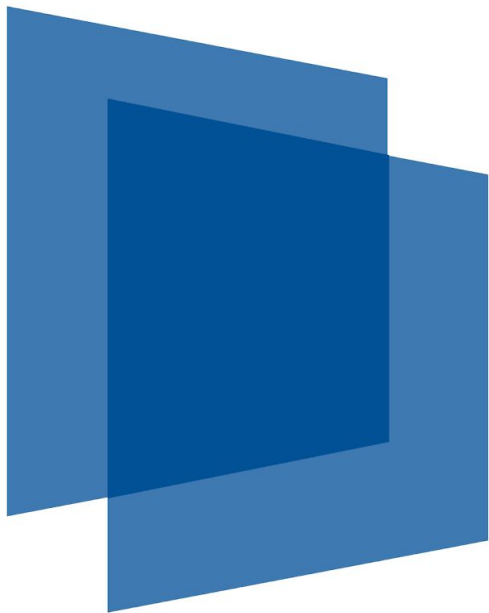
Does your content speak for itself?

Voice content enriches how users interact with our copy, but it also poses vexing questions and dilemmas. Get the answers from A Book Apart's first voice title, *Voice Content and Usability*.

Buy now!

bkaprt.com/vcu





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What we'll cover

- What's in a conversation?
- Web content versus voice content
- Crafting effective dialogues and flows
- The future of voice content
- Epilogue: Voice content in the omnichannel

1

What's in a conversation?

 A BOOK APART

NO
25

Erika Hall

CONVERSATIONAL DESIGN

FOREWORD BY John Maeda

Conversational Design, Erika Hall (A Book Apart)

Conversation is not a new interface. It's the oldest interface.

Conversation is how humans interact with one another, and have for millennia. We should be able to use the same principles to make our digital systems and intuitive to use by finally getting the machines to play by our rules.

Erika Hall,
Conversational Design

Intent
I need to order
a pizza.



Keyboard and mouse



Touch screen and dialpad



Conversation



Bringing interfaces to zero

Thinking about human-computer interactions from a screen-based perspective was never truly human-centered from the start.

The ideal interface is an interface that's not noticeable at all—a world in which the distance from thought to action has collapsed and merely uttering a phrase can make it so.

Erika Hall,
Conversational Design

Dichotomy of conversational UI

- Unlike chatbots, voice assistants are **monochannel** (hardware-specific); chatbots are **omnichannel** and can be used on multiple devices.
- The proliferation of frameworks (Dialogflow, Amazon Lex, Wit.ai, IBM Watson) is blurring the boundary between these.

Transactional voice interactions

Alison: Hey, how's it going?

Burhan: Hi, welcome to Crust Deluxe! It's cold out there. How can I help you?

Alison: Can I get a Hawaiian pizza with extra pineapple?

Burhan: Sure, what size?

Alison: Large.

Burhan: Anything else?

Alison: No thanks, that's it.

Burhan: Something to drink?

Alison: I'll have a bottle of Coke.

Burhan: You got it. That'll be \$13.55 and about fifteen minutes.

Informational voice interactions

Alison: Hey, how's it going?

Burhan: Hi, welcome to Crust Deluxe! It's cold out there. How can I help you?

Alison: Can I ask a few questions?

Burhan: Of course! Go right ahead.

Alison: Do you have any halal options on the menu?

Burhan: Absolutely! We can make any pie halal by request.

Alison: What about gluten-free pizzas?

Burhan: We can definitely do a gluten-free crust for you, no problem. Anything else I can answer for you?

Alison: That's it for now. Good to know. Thanks!

Burhan: Anytime, come back soon!

Voice content
involves informational, not
transactional interactions

2

Web content versus voice content

Content legibility

**Is it understandable to a listener
rather than a reader?**

Content discoverability

**Is content discoverable for users
working with flows, not links?**

Search for topics, agencies, cities



POPULAR TOPICS

Filing

Gettin

Downl

Apply

Identi

Apply

Collec

Apply

Answering Georgians' questions at home

Entirety of Georgia.gov FAQ
content available through
Amazon Alexa

Reinvented accessibility and
content strategy approaches

Cities &
Counties



GEORGIA.GOV

About Georgia Agencies Blog Cities & Counties Elected Officials Popular Topics

Home > Popular Topics > Business Licenses

★ Business Licenses

Before you launch your new business, you'll need to apply for a business license with your city or county. The process of starting a business is often complicated, so the Georgia Secretary of State recommends that you consult an attorney or accountant as you create your business plan.

What You Should Know:

- In some cities and counties, you'll first need to secure a [state tax identification number](#), a trade name registration and zoning approval for your business location. Additionally, your business may also need to [apply for corporate registrations, professional licenses](#), or other special operating permits prior to application.
- To find out more about business licensing in your area, you can visit your local Chamber of Commerce or development authority.
- Learn more about starting a business and registering its trade name, fictitious name, or Doing Business As (DBA) title with the [First Stop Business Information Center](#) on the Georgia Secretary of State website.

FAQs:

Do I have to register my business every year?

Yes. You must file an [Annual Registration](#) each year. The Annual Registration period for entities registered with the Secretary of State is from Jan. 1 until

Affiliated Agencies

- Georgia Secretary of State
- Georgia Department of Revenue
- Georgia Chamber of Commerce

★ Name Changes

★ Saving for College

★ Voting

The Georgia Secretary of State provides information on how to register to vote, how to find your polling location, and how to vote. The Georgia Secretary of State provides information on how to register to vote, how to find your polling location, and how to vote.

What You Should Know:

- To register to vote, either fill out and send in a Voter Registration Application or sign up when you renew your driver's license. After you register, the Secretary of State will send your precinct card to your county who will then send it to you. Although, it is important to note that you don't need to bring your precinct card to vote. Its purpose is to let you know where you need to go in order to vote.

What You Should Know:

- Get Plan
- Set infar read
- Geo
- Ther
- With tax-
- You
- Pay met

FAQs:

- See a [list of upcoming election dates](#) on the Georgia Secretary of State website.
- Log in to [My Voter Page](#) to find your polling location and see a sample ballot for the upcoming election.
- On Election Day, polling stations open at 7 a.m. and close at 7 p.m. If you can't vote during those times, you can either vote early or send in an absentee ballot.

Ask GeorgiaGov "popular topics" and "FAQs"



Driver's Licenses

Topic

The Department of Driver Services (DDS) helps you obtain, renew, or replace learner's permits, ID cards, and licenses. In Georgia, you must be at least 16 years of age (with the exception of drivers with legally blind parents) to carry a full license for everyday, non-commercial vehicles.

What You Should Know:

- You must renew your license every 8 years. Customers may be required to pass a vision test, knowledge exam, and the road skills test.
- You'll pay \$32 to renew your license for 8 years. You may be eligible to receive a \$5.00 discount by [renewing online](#).

What you should know

Structure of Ask GeorgiaGov content

FAQs:

How do I transfer my out-of-state driver's license once I move to Georgia?

Within 30 days of moving to Georgia you are required to visit the nearest Department of Driver Services (DDS) [Customer Service Center](#). Bring along:

- Your current license,
- Proof of your Social Security number,
- 2 proofs of Georgia residency (such as a bank statement, utility bill, or rental contract), and
- Proof of identity (such as a birth certificate, passport, or immigration card).

Additional documents required if you are changing your name. Visit the Department of Driver Services website to create a [Custom Checklist](#) and be sure you arrive with the necessary documents.

Question

Answer

FAQ

Structure of Ask GeorgiaGov content

**We performed a first-ever
omnichannel content audit to ensure
single-sourcing**

Title	No.	Recommendation	Proposed Accepted Y/N	Changes Made on Live Site Y/N
Getting Copies of Criminal Records (Georgia Crime Information Center)	2	<p>fee structure sheet:</p> <p>Proposed: delete sentence, remove link (included later on this page already): "A fee, payable by certified check or money order to the Georgia Crime Information Center, is required."</p> <p>Current: "Reference the fee structure sheet for applicable fees."</p> <p>Federal Bureau of Investigation</p>	Y	Y
—How do I run a background check on an applicant for employment?	1	<p>Read more about this: Delete sentence; use previous sentence.</p> <p>Proposed: "If, however, you'd like a fingerprint-based record check, you'll need to fill out a Georgia Crime information Center Service Agreement and complete an enrollment form for the Georgia Applicant Processing Service (GAPS).</p> <p>Current: "If, however, you'd like a fingerprint-based record check, you'll need to fill out a Georgia Crime Information Center Service Agreement and complete an enrollment form for the Georgia Applicant Processing Service (GAPS). Read more about this."</p>	Y	Y
—How much does a background check cost?	1	<p>fee structure sheet:</p> <p>Proposed: "Fees vary from \$10 to \$48.25 based on the type of services requested. A fee structure</p>	Y	Partially - added second sentence

Legend

	Keep intact
	Reword surrounding sentence per suggestion (action-based link; no context)
	Rewrite phrasing of question; also needs further discussion
	Needs further discussion
	Other
	No action needed

Voice content audit for Ask GeorgiaGov

**Like countless other editorial teams
Georgia could only manage one
single source of truth for content**

We audited for:

voice content legibility

voice content discoverability

Before

Medicaid has several programs that can help you and your family. Learn more about these programs.

For both the elderly and those with disabilities, waiver programs provide medical assistance within the comfort of a home- or community-based environment. Health professionals come to you to help you through recovery. Learn more about these programs.

You can update the name on your passport by securely mailing your application and fee to the U.S. Department of State. Find out what you need to do before sending the application.

After

Medicaid has several programs that can help you and your family.

For both the elderly and those with disabilities, waiver programs provide medical assistance within the comfort of a home- or community-based environment.

You can update the name on your passport by securely mailing your application and fee to the U.S. Department of State.

Addressing links and calls to action

Before

The Georgia Lottery Corporation only raises money for the Georgia Pre-K and HOPE Scholarship programs; it does not administer those programs. Read more about the [Pre-K Program](#) and the [HOPE Scholarship](#).

Although the state provides a standard [homestead exemption](#) of \$2,000 for your primary residence, some counties offer taxpayers even greater exemptions. [Learn about these exemptions for your county](#).

After

The Georgia Lottery Corporation only raises money for the [Georgia Pre-K](#) and [HOPE Scholarship](#) programs; it does not administer those programs.

Although the state provides a standard [homestead exemption](#) of \$2,000 for your primary residence, [some counties offer taxpayers even greater exemptions](#).

Addressing verbosity

Before

How do I submit an advertisement? (on “Subscribing to the Farmers & Consumers Market Bulletin” page) (“Which advertisement?”)

How long can I receive benefits? (on “Applying for Unemployment Benefits” page) (“Which benefits?”)

How do I start my loan application? (on “Applying for Environmental Loans and Tax Credits” page) (“For which loan?”)

After

How do I submit an advertisement to the Farmers and Consumers Market Bulletin?

How long can I receive unemployment benefits?

How do I start my environmental loan application?

Addressing context and ambiguity

Before

See the differences between an [LLC, Sole Proprietorship, and Corporation](#).

Read about [licensed practical nursing requirements and transferring a license from another state](#).

After

Not sure which business type meets your needs? Learn the differences between an [LLC, Sole Proprietorship, and Corporation](#) in the Georgia.gov blog.

You'll follow a different application process to get your nursing license depending on if and where you've been licensed before. The Georgia Secretary of State website provides [licensed practical nursing requirements and licensed registered nursing requirements](#).

Facilitating cross-channel interactions: sometimes compromise is best

Eight months later ...

- **79.2%** success rate on all interactions
- **71.2%** of all interactions led to agency phone number being provided

Most popular keywords:

- vehicle registration
- driver's licenses
- state sales tax

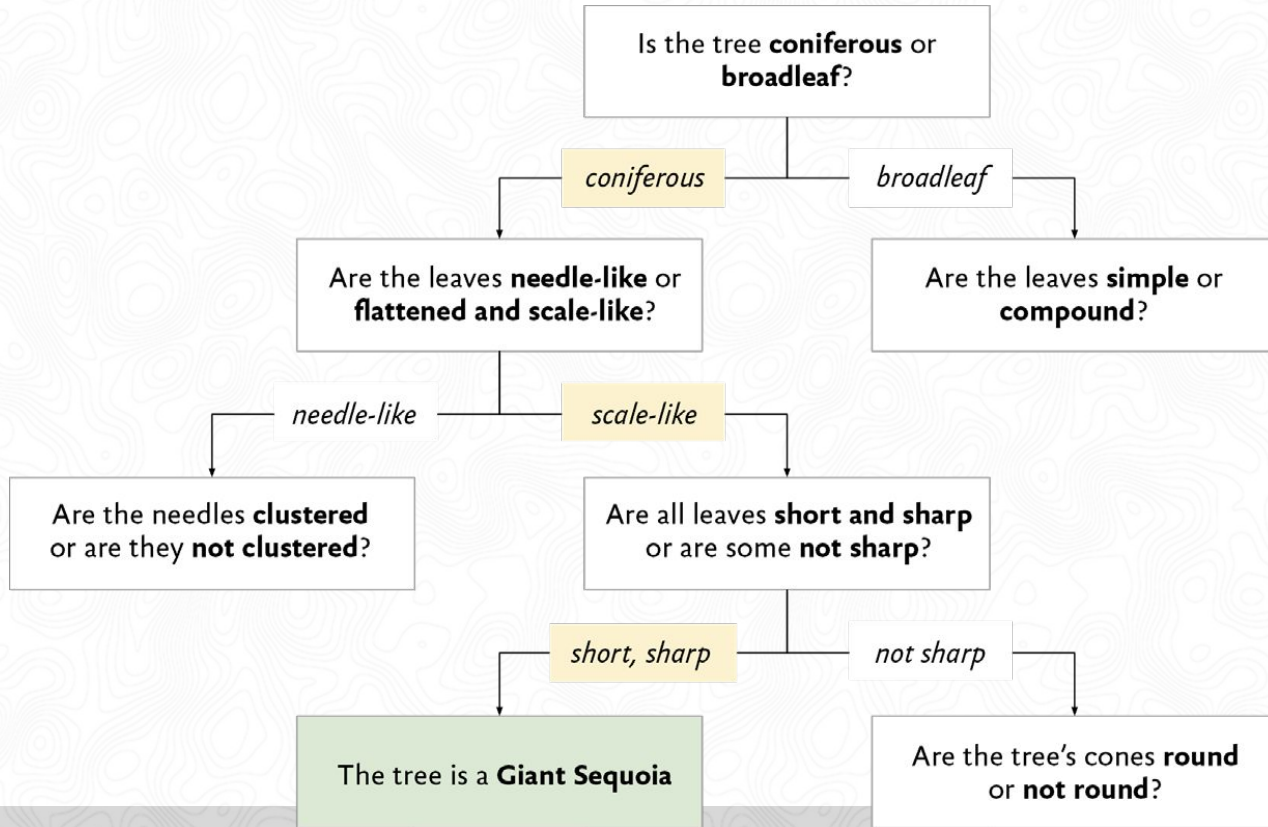
**The only sustainable approach is
a single source of truth for content
reused across channels**



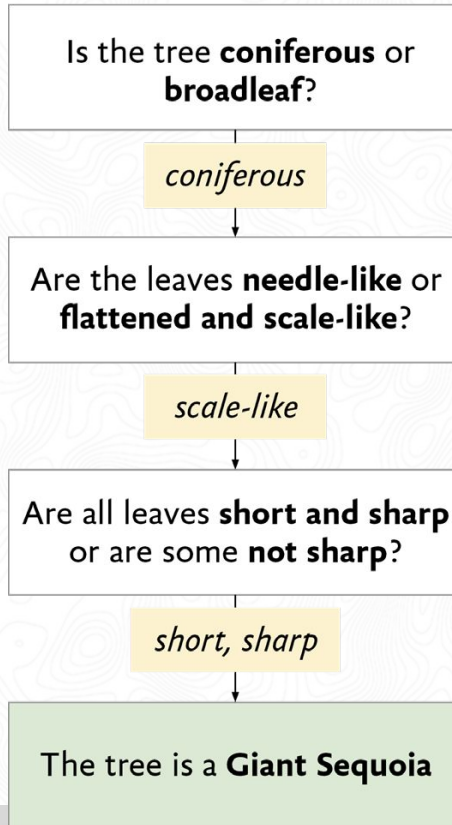
**But how do we address issues like
the nuances and navigation of
spoken—not written—content?**

3

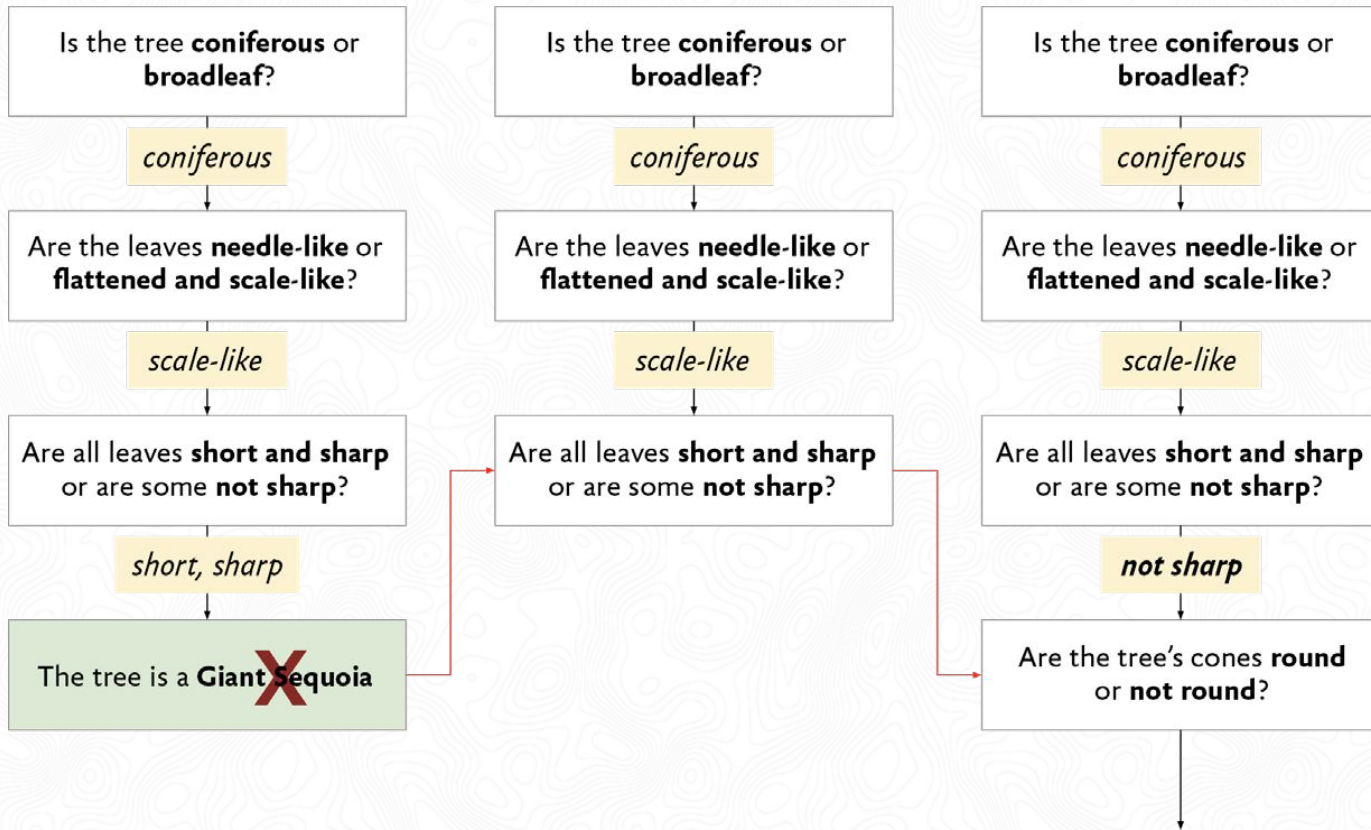
Crafting effective dialogues and effective flows



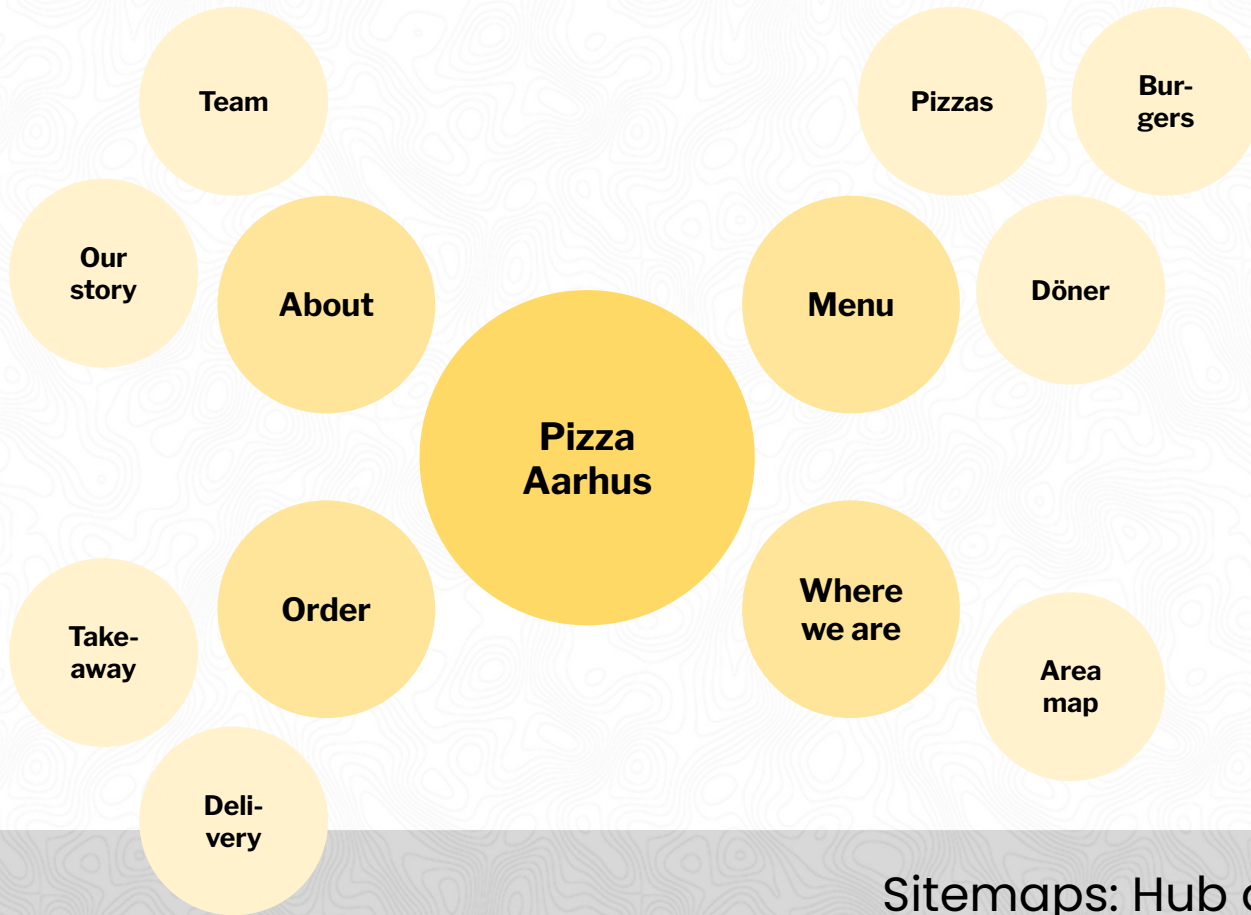
Single-access keys



Single-access keys



Single-access keys



Sitemaps: Hub and spoke

Pizza Aarhus

About

Team

Our story

Menu

Pizzas

Döner

Burgers

Order

Takeaway

Delivery

Where we are

Area map

Navbars: Lists of links

**In a web-optimized IA,
we can see everything's structure**

**In a voice-optimized IA,
the structure has to be given to us**

Welcome to Pizza Aarhus!

To learn more about us, say **About**

To hear our menu, say **Menu**

To place an order, say **Order**

To find out where we are, say **Where**

First level

Second level

Team **Our story** Informational

Pizzas **Döner** **Burgers** Informational

Takeaway **Delivery** Transactional

Area map **Directions** Informational

Conversational navigation: Limited list of options

**Information architecture requires
guided, unidirectional flows,
not sitemaps or navbars**

4

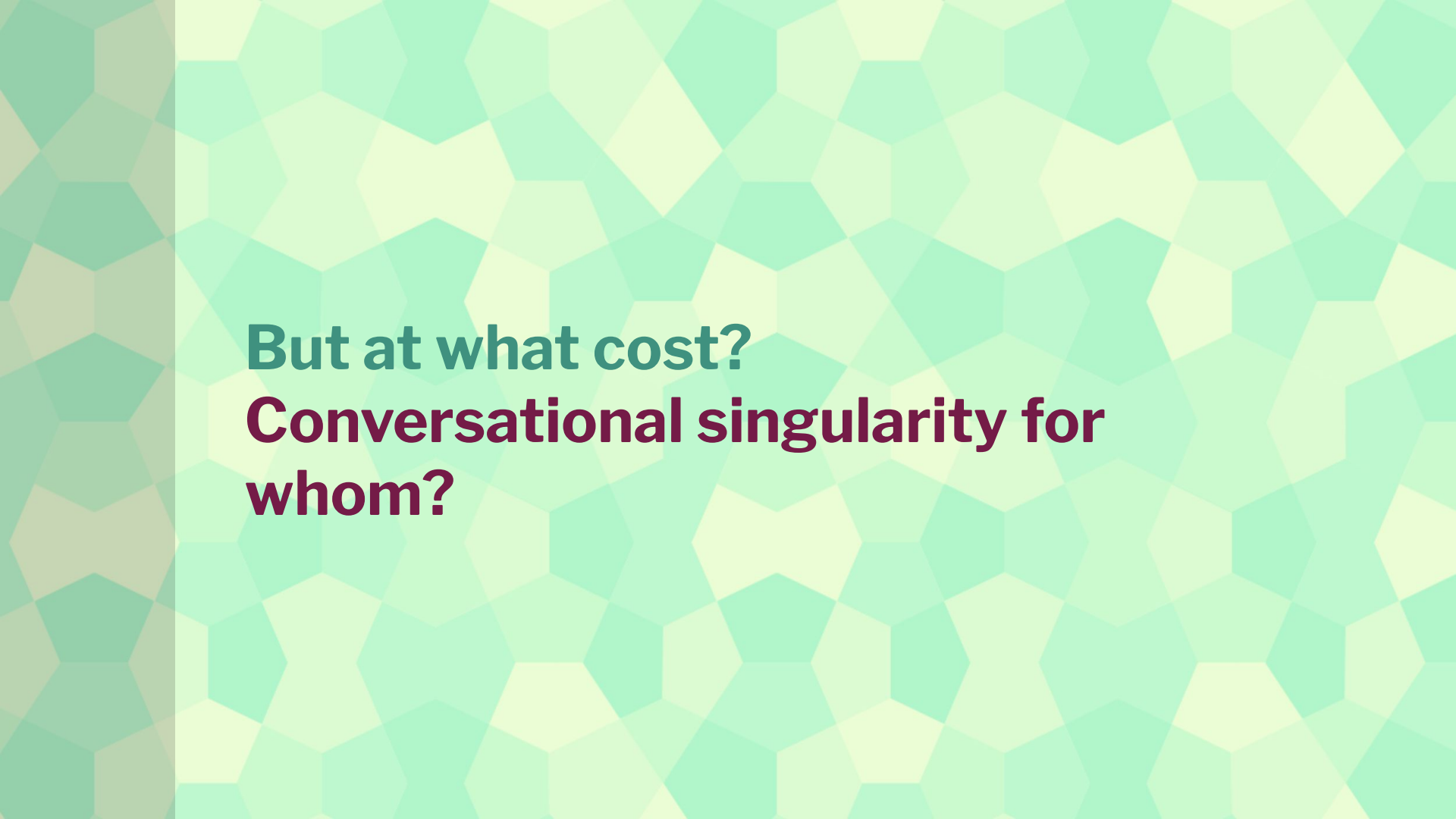
The future of voice content

**When you hear Alexa or Siri speak,
who is the person you picture?**



**Voice interfaces must represent
the richness of human language**

**The conversational singularity will
make voice interfaces indiscernible
from natural human conversation**



But at what cost?
**Conversational singularity for
whom?**

**Usability research shows that
some users prefer more artificial
conversational interactions**

5

Epilogue: Voice content in the omnichannel



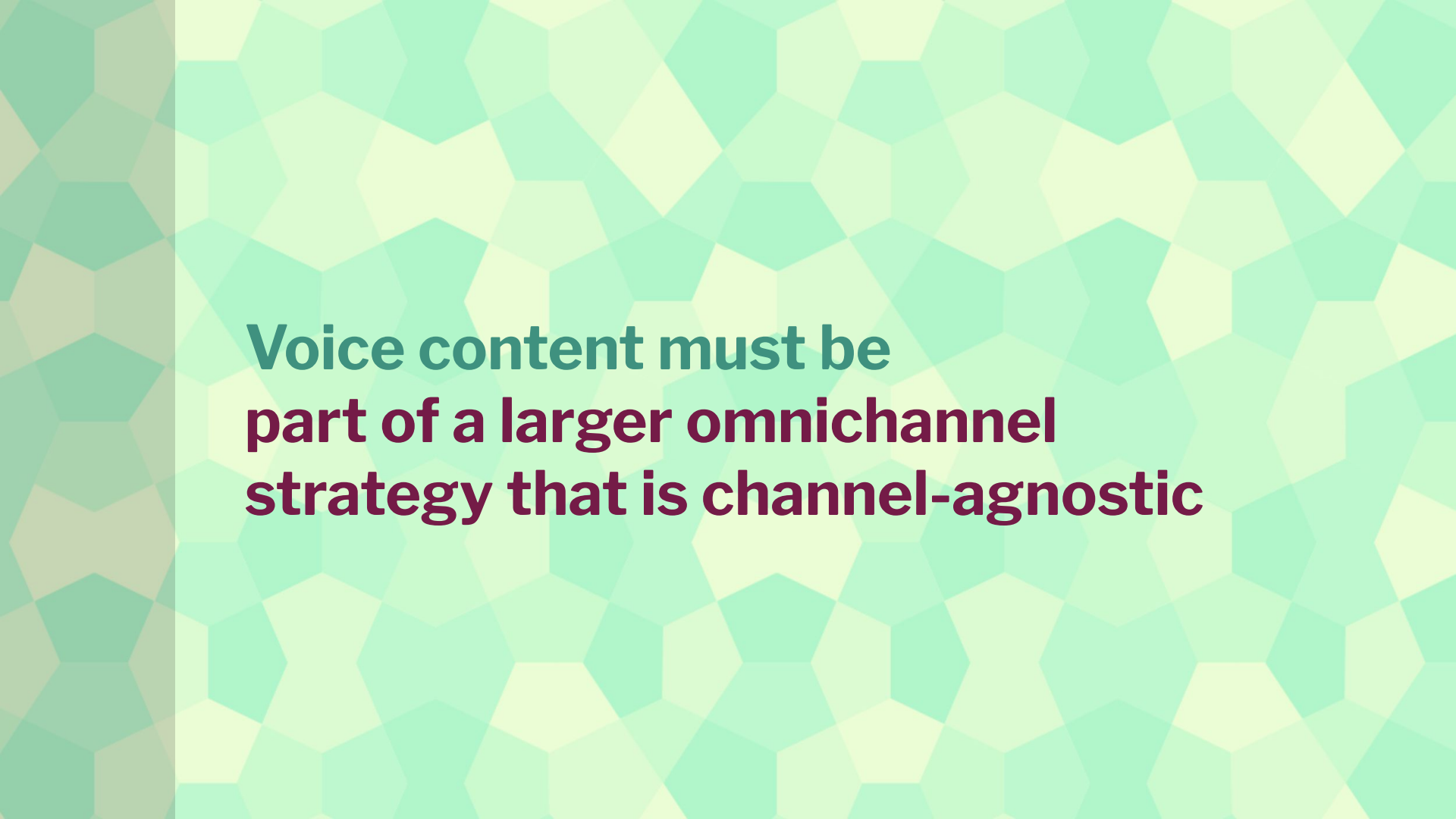
**Voice interfaces
are the most human of interfaces**



**Voice content
must be human-centered
in its language and its flows**



**Voice content
cannot stand alone
alongside web content**



**Voice content must be
part of a larger omnichannel
strategy that is channel-agnostic**

Resources

- ["Personality for voice interfaces: Humanizing the most human of interfaces"](#)
(*preston.so*, June 22, 2021)
- ["How to classify interactions for conversational interfaces"](#)
(*preston.so*, June 8, 2021)
- ["Register, diglossia, and why it's important to distinguish spoken from written conversational interfaces"](#)
(*preston.so*, June 2, 2021)
- ["How we integrated Alexa with Drupal for Ask GeorgiaGov, the first voice interface for residents of Georgia"](#)
(*preston.so*, May 26, 2021)

Resources

- ["Can voice assistants displace screen readers?"](#)
(*preston.so*, May 19, 2021)
- ["Conversational maxims and the cooperative principle in voice interface design"](#)
(*preston.so*, May 11, 2021)
- ["Can your content speak for itself?"](#)
(*preston.so*, May 5, 2021)
- ["Voice interface design is about good writing, not just good design"](#)
(*preston.so*, April 16, 2020)
- ["Affordance and wayfinding in voice interface design"](#)
(*preston.so*, March 3, 2020)

Resources

- ["Building usable conversations" series](#)
(*preston.so*, January 18, 2019)
- ["Usability testing for voice content"](#)
(*A List Apart*, April 9, 2020)
- ["Ask GeorgiaGov: Answering Georgians' questions with Alexa and Drupal"](#)
(*VOICE Summit Newark*, July 25, 2018)
- ["Talk over text: Conversational interface design and usability"](#)
(*Frontend United Utrecht*, June 1, 2018)

Thank you!

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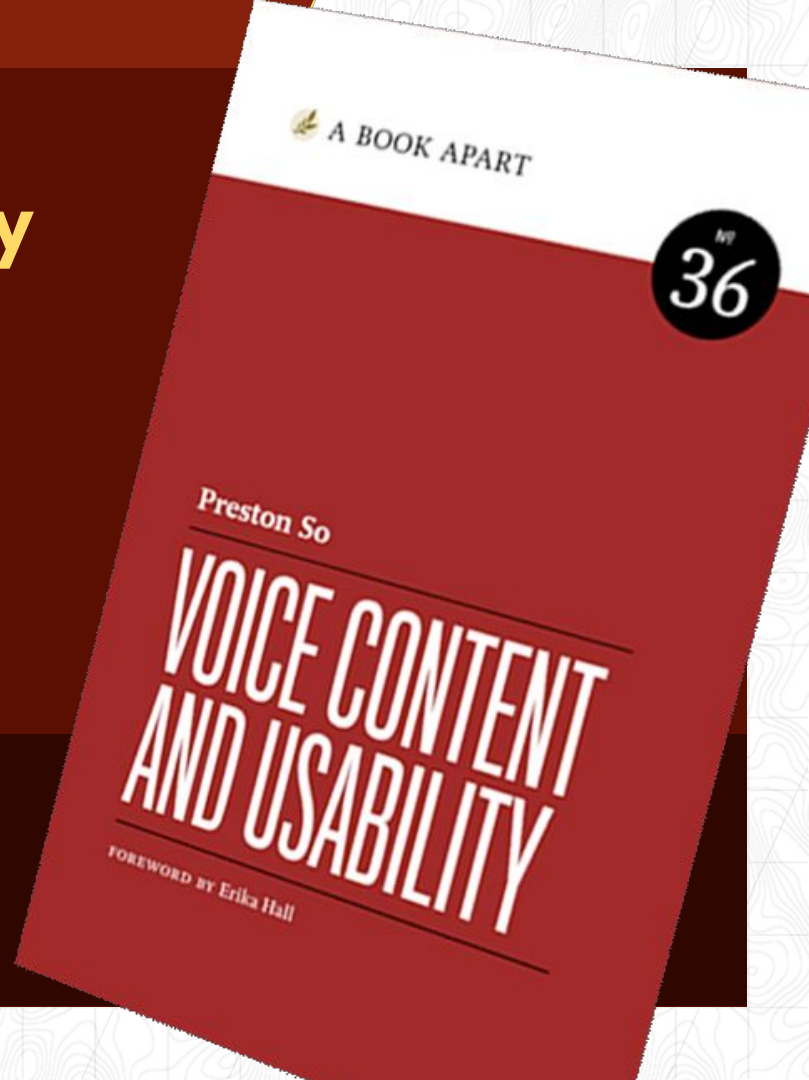
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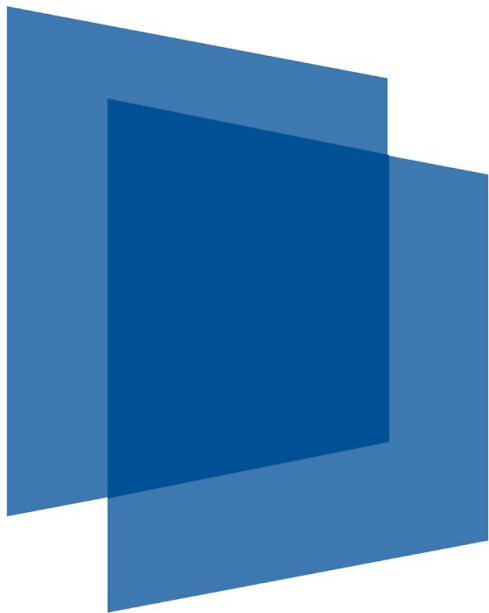
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