[music playing]

[Narelle] Hello.

Welcome to another episode
of The Digital Access Show.

Again, our guest is Mark Muscat.

Now, Mark's actually preparing
to do a bit of travel to Japan,

so we've got him on a
mobile phone tonight.

Thanks Mark for doing this.

Mark is the CEO…

of Digital Access Solutions
and Assistive Technology.

We're talking about the Web
Content Accessibility Guidelines.

And in particular, we looked
at each of the principles.

Now, we've looked
at perceivability.

We've looked at operability,

and today we're going
to look at the last two,

which is Understandable
and Robust.

In a separate session,

Mark, and I going to chat
about auditing and conformance.

So today, it is
Understandable and Robust.

Mark,

what's your take on the
understandable principle…

of the Web Content
Accessibility Guidelines?

[Mark] Well,

if a five year old
can't understand it,

then it's not understandable.

No, there's a lot
to understandable.

[Narelle] Yeah, there is.

[Mark] Yeah. Content has
got to be one of those aspects.

There's three clauses in
the understandable principle.

So that, that's correct, Narelle?
You're the one who does the auditing.

[Narelle] Yeah. There's three.

So, there is.

So, the first one's the
readable, and that's…

probably the most

easy one to fix, isn't it?

[Mark] Yes, it just means
that everything flows.

That you can read the text.

Images are actually
where they're meant to be.

They actually fit
in with the text,

or the text fits in
with the images.

Whichever way
you want to look at it.

[Narelle] Yep.

[Mark] And that, you know…

I know we talk about
cluttering and all that as well.

I mean, I know that's
more perceivable, but…

I mean that, sort of, you'll
find that a lot of perceivable

and understandable
are actually linked,

in my view.

But yeah, you'll find a
lot of that happening.

There's a lot of crossover.

But I think essentially, yes,

it's just making sure that
the text is understandable,

that acronyms and…

and all that are
somewhat clearly stated.

What other things are
there, Narelle, that we find…

[Narelle] If the jargon's there,

make sure, or if
it's complex words,

or words out of the norm,
maybe add a glossary.

What would you
suggest? A tool tip?

A glossary? What do you suggest?

[Mark] I like glossaries myself,

because you can click on a link
and it gives you a definition…

of a particular word.

That, that's…

I'm probably a bit old school,
cause that's what it used to be.

[Narelle] Yep.

[Mark] And yeah, I think lately,

I've been seeing a lot
of tool tips coming up,

and they work, and you
can make those accessible.

It's no problem with those.

I'm not saying that
they should be outlawed.

Yeah, they certainly can be …

[Narelle] But they, they have
to be keyboard accessible,

as well as mouse accessible,
and people, people forget that.

[Mark] Yep. Yeah.

[Narelle] They make it hoverable,

but not accessible by key, keyboard.

[Mark] Yes. I agree.

So, you got to make

sure that they are,

you know, they're there,

and people will be
able to get access to…

the definitions and
information pertaining to…

words and acronyms, etc.

[Narelle] Yeah.

[Mark] I think, yeah.

It's a very clear one.
It's not that difficult.

[Narelle] No.
The next one's predictable.

What's your take on predictable?

[Mark] Well,

yeah, it's um, yeah, if you're
expecting something to happen,

It should be the case.

If you click on a certain
button, it should come up with…

it should come up with
the right information that

you know, that you'd expect.

Just trying to think, what's
predictable to you, Narelle?

[Narelle] My best example,
I think it's the "Contact Us".

So if you've got the "Contact
Us" link in several pages,

which is quite normal.

[Mark] Yep.

[Narelle] And in
different spots on pages,

it always takes you

back to the same page.

That's, that to me, is a big one.

Or what's another one?

That even, like
you said, a menu.

It operates the same way.
It doesn't matter which…

page you're on, it operates
the same way every time.

[Mark] Yeah. You want them…

You want…

So, if you…

If you're…

putting a particular section in
a, in a, in a web page itself,

you want it to be predictable,

no matter where you come
from or where you go to.

[Narelle] Yeah.

[Mark] It's got to be the
same, that it's uniform.

I think that's
probably the wording.

[Narelle] Yeah, it is. I also
think it's the wording you use,

like you can use "Talk
to Us", or "Contact Us", or…

you know, "Contact".

There's a number of
different words you can use…

about the "Contact Us" page,
whatever you want to call it.

Call it the same
words everywhere.

Doesn't matter what, but
it's just got to be the same.

[Mark] Yeah, and that's
why it's predictable.

But I think that, that just…

fits into the readability
aspect as well.

And you'll find that…

that most people will expect…

People like that.
It's a routine thing, isn't it?

People like the predictability
of whatever they're doing,

whether it's making coffee or,
you know, reading a website.

They want that.

They want that sort of routine.

We are routine
animals, after all. Yeah.

[Narelle] We are.

And the last guideline
in the understandable,

is one I'm really big on,
which is input assistance.

Error checking.

[Mark] Yeah. This also
ties into operability in a way,

because you want
to make sure that…

that whatever…

But where we're
talking operability is that,

yeah, you get your data
validated and it's all correct.

And, you know, any

errors that come up.

Where the understandability
comes into it,

with input checking,

is that one, you know, you get…

instructions that make
it understandable.

We talked about this a bit
in the operability side of it.

[Narelle] Yep.

[Mark] But we're
making it very clear.

Instructions are
actually important.

But it's probably more so
in this particular principle,

because instructions…

make it very clear and
very understandable

to actually what is required…

from a particular input field.

So, if you've got
a date section,

and you are saying, if you're
using locale type environments,

their input instructions
are going to be different,

depending on what
locale you're working with.

So, if it's in Australia,
it's going to be…

day, month year.

If it's going to be
in the United States,

it's going to be,

what was it, month?

[Narelle] Month, day, year.
[Mark] Month, day, year.

[Mark] Sorry.

And if you're working in what I like,

the scientific
notation which is year,

month, day.

People have those particular,
you know, those particular,

I mean, I like the
scientific ones, but…

I also like working
in Australian.

So, that's my,

some of those local preferences.

And each of those instructions…

for that particular date field
has to be in accordance…

with the locale environment.

So, you can't…

[Narelle] Yeah. And also,

one of the tests,
I keep saying to people,

just test your form.

See what happens if you submit…

without any information entered,

do you get a text…

information on the screen,
not in a pop-up,

forget your pop-ups,

but on the screen saying this is
the information that's missing.

And explaining what's required.
It's little things like that.

[Mark] Well, what you
described fits into operability,

but the understandable is
making sure that the text is…

clear about what,
actually, you know,

what the error is
being generated.

So yeah, it's a bit
of an overlap there.

But anyway,

that it all makes
sense when you…

when you do put it
into the context of…

making your web sites

and web forms, in this case,

understandable.

[Narelle] That's it.

Mark, the last
principle is robust.

And robust is where I
often see a lot of problems.

I can just about guarantee
a lot of websites fail on it.

Now, robust only has one
guideline, which is compatible.

And basically, it's saying,
that if you've got a website,

you need to be
able to view all that

information on mobile phone,

on a tablet, on a computer.

A person using VoiceOver gets
exactly the same information…

as a person that has to
use a puff and sip tool.

Everything's the same, right?

[Mark] That's right.

And that's why it's
known as the robust,

that it's actually performing
in different environments,

that it's compatible
with different browsers.

We all know that…

Well, there are
probably two main…

web-based engines that

are, that are being
used in many browsers.

But the reality is that…

different browsers have ways of…

working with JavaScript,

working with…

HTML5, and HTML5
itself is actually quite loose.

[Narelle] Yes.

[Mark] You can get away
with quite a lot with HTML5.

So, you know,

there is another,
there was another part

that was part of robust,

and we were just talking
about that before we started.

And that was to do with the

actual code of the websites.

But as you have pointed out,

pointed that out to
me quite correctly.

The world doesn't work, that work
the way that I think it should?

So, yeah, we, we, we deal
with compatibility mainly,

and it was…

just a couple technical aspects,

but robust is the most technical
out of all the principles.

-[Narelle] Yes. I agree.
-[Mark] Because it involves the…

[Mark] The actual
internet and web…

technologies that we
actually use to actually…

produce the websites and…

people to browse the website.

[Narelle] And that's it.

[in unison] Yeah.

[Narelle] And the easy
tests for it, really, is…

turn on Windows Narrator.

Or if you're on a
Mac, your VoiceOver.

And…

Go to your Contact Us page,

Whatever, hit submit,

and do you hear
a voice telling you…

"This is the error"?

If you don't, you know
you've failed robust.

There's an ARIA19 role
that you can use to fix that.

[Mark] Yeah.

You know that in the
context of accessibility,

but robust is actually a
lot more in the sense of…

if you can't get the same look

and feel from one
browser to another,

it fails robust as well.

So, if you wanted
to even break that…

test even further down to a
simplified visual perspection.

If the web page that

you're looking at…

is different from one
browser to another,

it doesn't have to be.

It could be looking different
aesthetically and so forth,

but if it functions differently,

then you got robust issues.

[Narelle] Yeah. That's true.

[Mark] What you described
is one important aspect,

when it comes to
assistive technologies.

But there is actually a very
common way to look for it.

And often,

yeah, as you said,

when we talk about conformance,

we'll probably touch
a little bit about robust.

I know we…

you know, people,
obvious, obviously,

because it's only
one, now it's only one,

It doesn't really
get considered,

but it's a really important
one to actually do,

while you're developing
and implementing…

any project,

because you want
to keep it, the robust…

or the robusticity…

of your website is
actually going to be…

important whilst you actually
implement and design…

those particular
pages within the site.

So, yeah, that's pretty
much all about robust.

There's not much to it, but…

it's an important principle.

[Narelle] Yeah.

Out of the four principles,

to my mind,

understandable is the one that

you most often
seeing people pass.

Readability and predictability.
They're pretty straightforward.

Oftentimes, the input
assistance, they pass.

So, mostly understandable,
you do pass.

Your perceivability,

to an extent, there are
errors that, like videos,

your captioning and audio
description that we talked about.

Perceivability is often
not done or it's done badly.

So, it's not, they use
AI-generated at times.

[Mark] Yeah.

[Narelle] Operability is often
one where there's failures.

And robust,
there is often failures.

So, when you think about it,

people do mostly,
anything is a visual thing,

they mostly get right,

[Mark] Yeah.

[Mark] Yeah.
[Narelle] Yeah.

[Narelle] And it's interesting
that the really technical stuff,

which you is your robust,
is mostly wrong,

and your operability can be
50, 80 percent wrong as well.

So, what are some…

What's the advice that you

would give to people, Mark,

in this area, to consider?

[Mark] Look,

in the context of actual
development of any system,

you know, having,

having the aah, pre,
an understanding,

cause that word,
Understanding, is quite,

quite, is used a lot today,

is really important…

to have that understanding

of all the principles
when you're actually …

even doing specifications,

of, of a project.

Because you can actually,
I think, in a lot of cases,

if you include the
lot of the principles,

the attributes of the principles
that we've discussed…

into the specifications…

that you have in your projects,

you will find that…

by achieving
those specifications,

that the sites or the systems
that you're actually developing…

are, are going to be better off,

not just in an
accessibility context, but…

you know, general usability and, and…

perhaps even, you could even argue

in a , in an efficiency context,

for systems to be ran

we all like to work on. Okay.

what sort of error
testing do we do?

What sort of…

What sort of expected results
should we be getting out of…

a particular website if a server
actually produces a result…

database.

You know, look-ups, fetches,

views, all that sort of stuff.

That's all important.

And you know,

the principles in the WCAG
are just as important as those,

not just from a
usability but from…

from an internal accessibility…

point of view.

I mean, I really can't put it.
It comes back to the old adage,

do it while you design,

and do it while you specify,

and you're actually going to
have a very accessible project.

And it won't cost
you much to do it.

[Narelle] Yeah. And I think, I think,

to be honest, the other thing
that I find a bit sad, maybe.

I know you and I actually
went through uni before WCAG…

became anything.

But it should be taught today,

just as part of the uni course.

When you're developing,

TAFE, everywhere.

[Mark] It should be taught in
software engineering courses.

I mean, accessibility is not
so much of a programming…

paradigm.

It's more of an
engineering paradigm,

and it sits well and truly in

the software engineering.

I mean, one could argue it
should be done in programming,

and I would agree with that.

The actual foundations

of accessibility are actually
software engineering,

rather than actual programming.

So, yeah.

Because once you have
it all in the specifications,

it's up to the programmers
to make sure that…

those specifications are met.

So yeah, as a programmer,

and as a…

what I call a coder these days.

[Narelle] Yep. Coder, yeah.

[Mark] You know,
it's important to…

fit that into…

you know, from a software
engineering point of view.

We can talk about
this for hours.

I've taken the major.

But the reality is,
I think you'll find that,

you know, a lot of this stuff is
actually software engineering.

[Narelle] And the other
thing, it's more than that.

It's even down to when
a document's produced,

or an email is sent that
is just always built-in,

because if it's always built-in,

everyone can access
the information.

And really, all that a
document or a website,

whatever you do,
even what we're doing,

it's just communication,

and it's good
communication practices.

[Mark] Yes, and I agree.

You're looking
at a very general…

point of view,
and I totally agree with that.

I'm wondering if we'll see the W
from WCAG dropped off to become…

B or something digital.

[Narelle] No, what they're
talking about in version three,

is actually taking
the name web out,

and just call it Content
Accessibility Guidelines.

For exactly that reason,
it's all digital content.

[Mark] Yeah, I agree with that.

I think that sounds it up,

sums it up quite nicely
when you look at it.

[Narelle] That's it.

[Mark] Well, you know,

that being the case,
I think there's some…

some, you know, important things
to actually gain out of that,

not just for web,

but also for media and…

other forms of content
that we're looking at,

that we use day in, day out.

[Narelle] Yeah.
[Mark] Yeah.

[Narelle] So, Mark, if people
want to keep talking about

the Web Contenty
Accessibility Guidelines,

obviously, DASAT, The
Digital Access Solutions,

are the trainers in it,

and auditors.

And they can contact you
by emailing you at reception,

R-E-C-E-P-T-I-O-N,

@dasat.com.au.
Is that right?

[Mark] Yes, that's right.

And go to our website,

DASAT.com.au,

and all our details
will be there as well.

[Narelle] Yeah.

[Mark] You'll be contacting
either myself or Narelle.

And, yeah.

We'll be happy to answer

any questions about,

not just content…

accessibility.

Digital accessibility, which is
what our first two words are.

But any assistive
technology questions as well…

is welcomed.

So…

[Narelle] Yeah.
[Mark] Yeah.

[Narelle] So, look, thanks Mark.
Thanks for tonight.

We'll gonna do one more
principle before you go to Japan.

[Mark] No, we're not.
We're doing conformance.

[Narelle] We're
doing conformance.

That's not a principle,

but we're gonna have a chat
about auditing and conformance.

That's in our next episode.

And look, if you like
what we're doing,

please like, share,
subscribe, review.

Email us, let us
know your feedback,

See you on the next episode
of The Digital Access Show.

Have a good night.

[music playing]