Multilingual Web Accessibility

CMS Philly, May 1, 2020
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Setting Expectations

The COVID-19 pandemic has drastically impacted the world.

Please be patient and kind.

This session:

- Has a generic design.
- Is not completely prepared for a11y.
- Still has substance!

Setting Expectations

- Multilingual (**ML**) & Accessibility (**a11y**) are big, complex topics.
- Combining the two increases complexity.
- We are going to cover big concepts.
- Assume some collective accessibility knowledge.
- Please ask questions!

Multilingual Websites & Web Accessibility are big topics on their own.
Combining the two increases complexity across technology, process, and training.
We are going to cover concepts in this session.
Assume there is some accessibility knowledge.

Assumptions

1. Follow best practices and standards
2. Skilled team members will perform work
3. Specialists for each organization and technology architect the most viable solution *for the org's needs*.

Disclaimer: *this session is for information only and does not represent any legal advice.*

Session Goals

Gain understanding.

We will surface:

- Concepts
- Considerations
- Challenges

It is sometimes hard to approach a big topic, so we'll go for some general understanding.

Reaching our goals

1. Mutual considerations of ML and a11y
2. Overview of multilingual implementations
3. Highlight language-specific accessibility needs
4. Challenges of compliance
5. Impact to processes & workflow

Mutual Considerations

[Some] Mutual considerations of ML & a11y

1. Legal
2. Design
3. Development
4. Comprehension
5. Testing
6. Workflow

Legal

- Accessibility compliance
  - Government agencies, higher education, industry
  - Many international laws; most use WCAG 2.0 as a standard
- Multilingual requirements
  - Industry vertical + Government + Population
  - Health care + Gov't contract + Spanish Population in CA
  - Countries with multiple official languages (Canada)

Design

- Layout (structure, negative space, reflow, zoom)
- Fonts (selection, size, colors)
- Media (text images, video, audio, infographics)
- Navigation (menus, blocks, headings)

Development

- Semantic HTML is good for everyone!
- Use specialized markup to surface text strings
- Require additional technology configurations, libraries, and possible integrations
- Require additional training and skills
- Require specific testing tools, including manual tests
- Require full-coverage/best-practices adherence

Comprehension

- Plain language content (in all languages)
- Content reading level
- Content structure (headings, paragraph, sentences)
- Content structure (tabular data)
- Text-based alternatives (diagrams, charts)
- Language delivery (visual, auditory, haptic)

Testing

- Specific tools
- Manual testing
- Very user-specific testing (e.g., Low-sight Brazilian Portuguese)
- Test coverage
- Testing process
- Validation & proof of compliance

Workflow

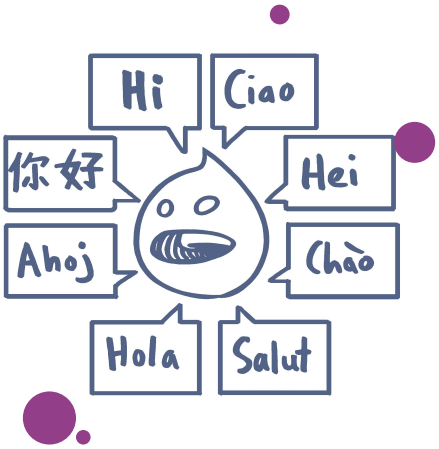
- Glossaries, taxonomies, & structural content
- Initial content creation
- Content review & validation
- Content publication
- End-to-end time to market

Glossary for a11y? Yes! For comprehension, consistency, definition, and understanding. Consistency of navigational elements, terminology, definitions, structure.

Multilingual Web Overview

Multilingual Topics

- Multilingual design
- Multilingual page rendering
- Multilingual development
- Multilingual content process



Multilingual design considerations

- Right-to-left layouts
- Long words & symbols in all content elements
- Using text in images (non SVG)
- Supporting text (labels, menus, etc.)
- Use of SVGs

Multilingual page rendering: Native

Languages are rendered directly from the website.

Examples:

- Drupal core language, Adobe AEM native support
- Hard-coded HTML (or HTML output)
- Often integrated with a 3rd Party TMS to provide the multilingual translations (Lingotek)

Multilingual page rendering: Proxy

Translations are added with a JavaScript overlay and served from a Translation Management Service.

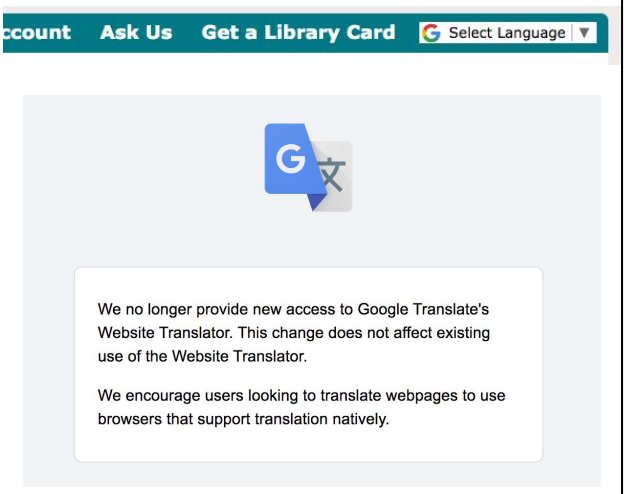
Examples:

- Google Translate widget (on-site), Chrome plugin
- Paid SaaS: Transifex, Smartling GDN, SDL Proxy
- Some proxies require additional development to support decoupled sites (React/Vue).

About the Google Translate widget

The website plugin is no longer supported!

- Quality of machine translations reduced by overuse.
- User level: use Google Chrome translate plugin.



One can still get the code from non-Google sources, but there is no guaranteed support.

Multilingual development considerations

- Mindful when embedding text strings in code.
- Surface text for content editor modifications.
- Define explicit language on the page and sections.
- Forms (native and third-party integrations).
- All of the “hidden” and less-obvious content:
  - Page metadata, OpenGraph, and Social Media integrations
  - HREFlang, URLs

Multilingual content workflow

- Source content must be “final for translation”.
- Human/professional translation costs money.
- Machine translation impacts content comprehension.
- Translations commonly take place in a TMS system and may have limited context.
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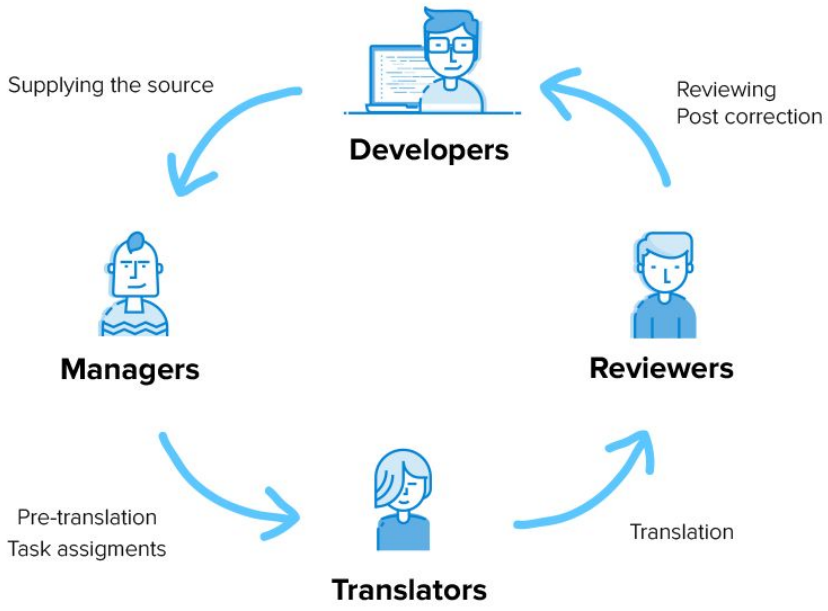
Multilingual Team

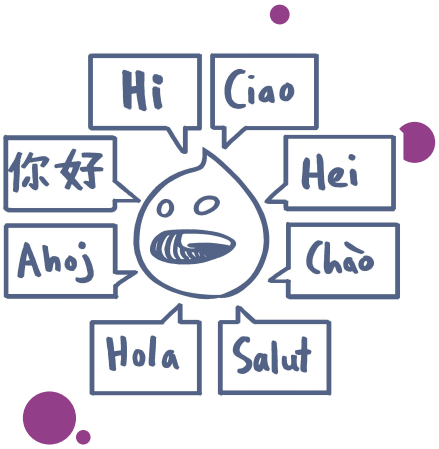
Image source: https://www.globalizationpartners.com/2013/04/08/website-translation-reviewing-source-files-and-cms-workflows/


Supplying the source
Developers
Reviewing
Post correction
Managers
Reviewers
Pre-translation
Task assigments
Translators
Translation

Accessibility Language Considerations

Accessibility language considerations

- ML Accessibility coverage
- Accessible Technology
- WCAG Success Criteria



Multilingual Accessibility Coverage

- Identify your needs (legal & business)
- Identify your tools, team, and process
- Balance the process within your org constraints.

- Challenges:
  - There are many testing steps & test cases permutations.
  - **Editorial Content is a huge source of compliance issues!**

Multilingual Accessible Technology

- Native Operating System languages
- Text-to-speech: Synthesizers, Screen readers
- What about Braille?
- Challenges:
  - AT requires semantic HTML to function correctly
  - Language coverage differs across technology

Braille: not a language, but a writing system
Braille: created based on french/western ascii language, other languages such as german have a slightly modified usage that match the phonetic sounds that are close
Refreshable braille displays

WCAG: Multilingual Design

- Reflow, resize, text spacing, font, text size
- Text based buttons (size & functionality)
- Clear representation (language switchers (flag/code))
- Images of text
- Challenges
  - Requires a11y design testing across languages
  - Media approach should be considered

WCAG: Identify language in Code

- Language of page <html lang="en">
- Language of parts mon ordinateur parle français

- Challenges:
  - Website & CMS configuration required
  - In-page content: editor tools, training, and TMS process

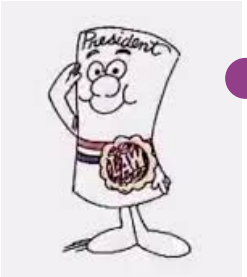
WCAG: Success Criteria w/ translatable text

- Non-text alternatives
- Errors, labels, messages
- Audio descriptions, closed captions
- Sign-language
- Challenges:
  - CMS/display - rendering translated versions
  - Workflow - surface, translate, test, and publish language variants

Challenges with Compliance

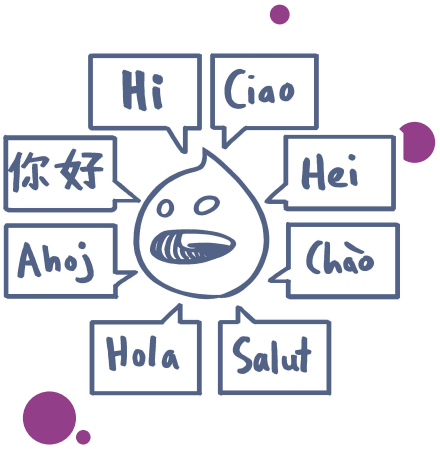
Compliance? Choice vs. Requirement

- Choice:
  - Increase market reach
  - The Greater Good
- Requirement:
  - Scope: Municipal, State, and Federal
  - Receive funding
  - Population percentage is non-English speaking
  - Essential services



Proof of compliance

- Availability of tools
  - Non-English reading level
- False-negatives
  - Spell checking
- Manual testing
  - Trusted tester (DHS)
- Proof of quality over time (scores)
  - Quantification of compliance



Cost of compliance

- How much to test and when?
- Translated content a11y tests
  - How much is automatic?
  - How much is manual?
  - How often?
- Multiple compliance req's
  - a11y + Language Access Laws

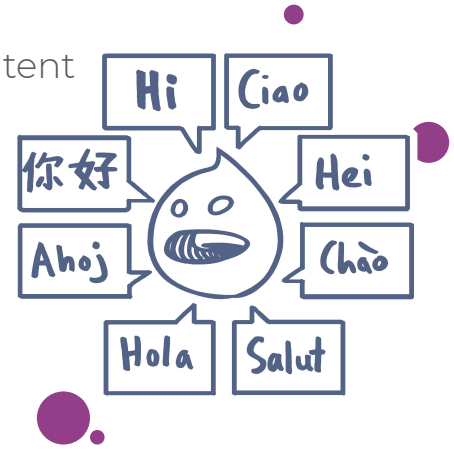
Workflow Impact

Common workflows

- Source content workflow A11y test here? Just content or the whole tech?
- Translation content workflow Train? Good source = good translation?
- Localization content workflow Train? Test? Locale specific content.
- Content specific success criteria Train? Test? Alt text, colloquialisms, etc.
- Specialized content workflows Digital Assets (DAM), Processes, APIs
- Content publication lifecycle (all languages) Proof of public access. When does it go “live”? How to manage changes?

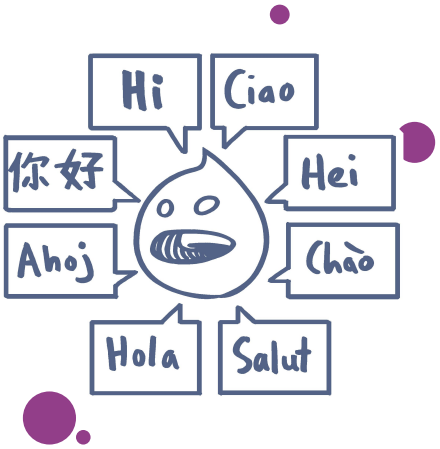
Workflow considerations

- When do you add a11y to the ML content workflows?
- When do you add ML to the a11y workflows?
- Who do you train?
- Who is testing?
- When do you test?
- What are you testing?



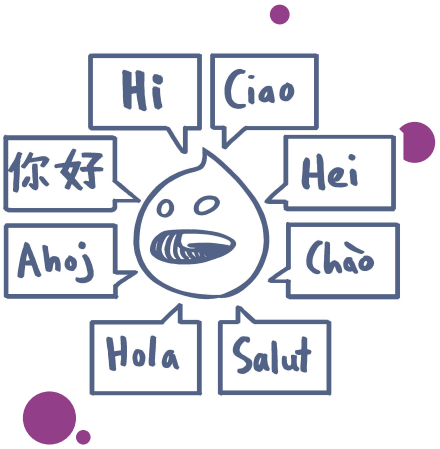
External considerations

- Translations happen outside the CMS and returned to the website.
- Professional translators change without control.
- How do the 3rd party integrated systems support ML + a11y? Integrating requires consistency and more testing.



Perform Audits

- **Personally:** enterprise tech, process, and multilingual audits for 25+ years, a11y audits for 4 years
- **Multilingual:** preparation for translation, efficient translation process
- **A11y:** tie comprehensive testing into the overall process, use audits as a starting point or confirm baseline



Accessible Multilingual Team

Accessibility Governance Team

Accessibility Testers

Accessibility Testing Tools

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Questions?
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Thank you!
Merci!
Gracias!