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# Contextual Web Accessibility - Maximizing the Benefit of Accessibility Guidelines

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# W4A 2005: Reprise

At W4A 2005 we presented “*Forcing Standardization or Accommodating Diversity...*”: →

- The practical difficulties of using a “standard” to encapsulate design requirements to accommodate a diverse set of needs under a diverse set of circumstances
- The achievements and limitations of WCAG in supporting this
- The resultant difficulties (and absurdities) from legislation and policy – that makes inappropriate reference to WCAG
- Using the example of the e-learning sector we pointed the way to a more holistic view of Web accessibility

We received many positive comments on the ideas we presented →



# One Year On – Where are We?

- WCAG 2.0 is ever closer
- The “baseline” concept introduced with WCAG 2.0 is an excellent development
- But – are we still trying to promote a “universally accessible Web” at the expense of “optimally accessible information, communication, education, entertainment, services...”?



# Limitations of the WAI Model

- WAI model relies on conformant Web sites, conformant authoring tools, conformant user agents
- ...and conformant users!
- A common complaint of “standardistas” – *“the user needs to take responsibility...”*
- There is value in this argument – but there are practical shortcomings
- And user technophobia/laziness/lethargy is only one obstacle
  - How many users know they are “disabled”?



# The Importance of Context

- We argue Web accessibility is about supporting users achieve real world goals
- From Beyer & Holzblatt (1998) – the more you know about **your target audience** the more you can design to support them
- So the goal of “universal accessibility” has changed to supporting a defined set of users in the best possible way...
- How can we use WCAG to achieve this?



# The Challenges

To summarise:

- WAI has been a great political success
- The underlying principles are widely accepted

However

- The WAI model has its limitations →
- Accessibility of digital resources can be provided in a variety of ways
- Blended approaches may be relevant in some areas
- Other areas may have differing views and definitions of "accessibility" and disability (cf IMS AccessForAll)

The challenges:

- Do we ignore such complexities?
- Do we abandon the WAI approach and look for alternatives?
- Do we look for an approach which can leverage WAI's successes whilst allowing for a diversity of solutions?

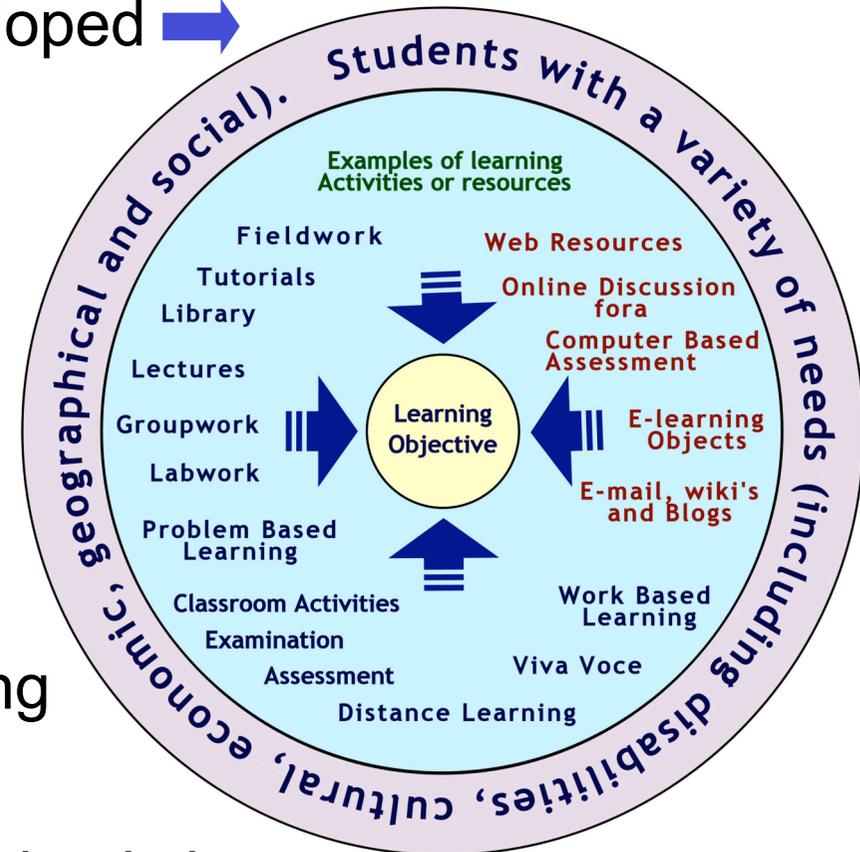
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# Holistic Approach

Kelly, Phipps & Swift developed a blended approach to e-learning accessibility →

This approach:

- Focusses on the needs of the learner
- Requires accessible *learning outcomes*, not necessarily e-learning resources



This approach reflects emphasis in UK on *blended learning* (rather than e-learning)

Follow-up work awarded prize for Best Research Paper at ALT-C 2005 E-learning conference →

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# Accessibility in Context

**External factors:** Institutional issues (funds, expertise, policies, security...)

## Digital Library Programme

| Context    |                         |           |           |          |     |
|------------|-------------------------|-----------|-----------|----------|-----|
| Purpose    | Sector                  | Funding   | Resources | Research | ... |
| Policies   |                         |           |           |          |     |
| Standards  | Accessibility/Usability | Privacy   | Finance   | ...      |     |
| Compliance |                         |           |           |          |     |
| External   | Self-assessment         | Penalties | Learning  | Broken   |     |

**External factors:** Legal issues; cultural factors; ...

A framework has been developed which places accessibility & usability within a wider context:

- The context
- A range of policies
- A compliance regime

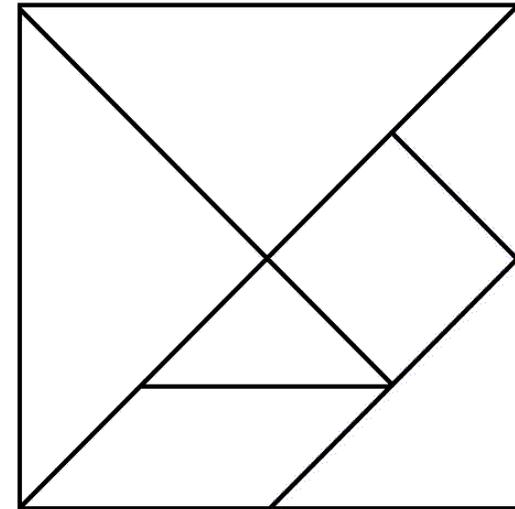
Accessibility guidelines should be usable in wider context

This approach embraces *relativism* and *context* rather than the current *absolute* approach

# Articulating the Approach

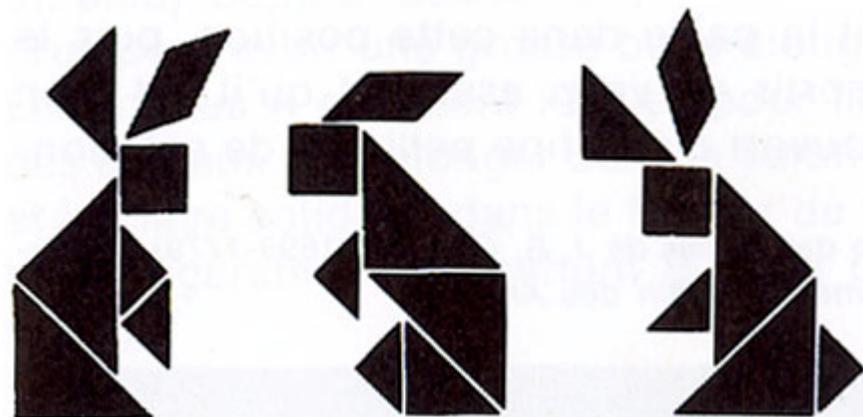
The "Tangram Metaphor" developed to avoid checklist / automated approach:

- W3C model has limitations
- Jigsaw model implies single solution
- Tangram model seeks to avoid such problems



This approach:

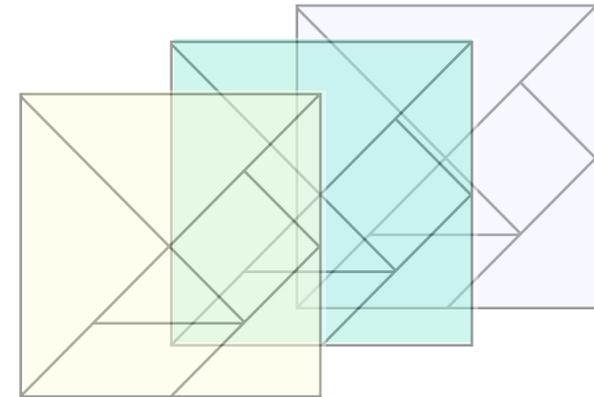
- Encourages developers to think about a diversity of solutions
- Focus on 'pleasure' it provides to user



# Tangram Model

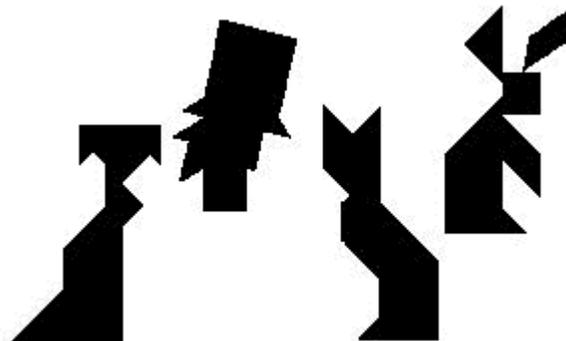
Model allows us to:

- Focuses on end solution rather than individual components
- Provided solutions tailored for end user
- Doesn't limit scope (can you do better than WAI AAA?)
- Make use of automated checking – but ensures emphasis is on user satisfaction



Guidelines/standards for/from:

- WAI
- Usability
- Organisational
- Dyslexic
- Learning difficulties
- Legal
- Management (resources, ...)
- Interoperability
- Accessibility metadata
- Mobile Web
- ...



# Tangram Model & Testability

"WCAG 2.0 success criteria are written as testable statements ..." (nb. automated & human testing 😊)

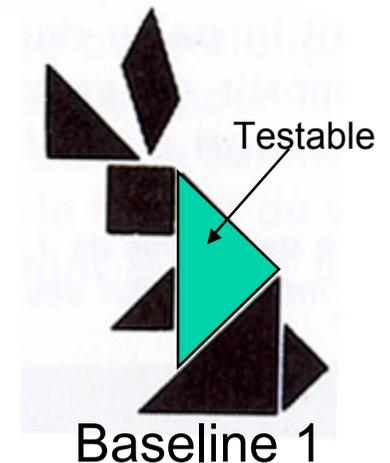
Issues:

- What about WCAG principles that don't have defined success criteria (e.g. "content must be understandable")?
- What about 'baselines' – context only known locally
- What about differing models or / definitions of 'accessibility'?

Note vendors of accessibility testing services will market WCAG tools e.g. see posting on BSI PAS 78 →

Tangram model can be used within WCAG

- Distinguish between testable (ALT tags) and subjective (content understandable)
- Supports baselines



# The Cathedral & The Bazaar

## WAI Approach:

- Large-scale and ambitious –but slow-moving
- External dependencies (e.g. on legal systems)
- Based on single approach ("you must ...")
- Web-centric approach
- Cathedral approach to development

## Holistic Approach:

- Modular & can be more rapid-moving & responsive
- Based on diversity of approaches - "seek to ..."
- *"I don't claim people should do 100% of what I say"* J Neilson
- Covers Web, other IT and real-world accessibility
- Bazaar approach to development

WCAG 2.0's 'baseline' seems to recognise a contextual view 😊

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# The Legal Framework

This approach is well-suited for the UK legal framework:

SENDA/DDA legislation requires "*organisations to take reasonable measures to ensure people with disabilities are not discriminated against unfairly*"

Note that the legislation is:

- Technologically neutral
- Backwards and forwards compatible
- Avoids version control complexities
- ...

The legislation also covers usability, as well as accessibility

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# Conclusions

To conclude:

- WAI has provided a valuable starting point
- Need to develop a richer underlying model
- Need for Web accessibility to be placed in wider content
- Contextual approach & tangram metaphor aim to help inform such developments
- Should the WAI approach be more open about contextualisation or should this be applied externally?
- There's a need to an evidence-based approach and less ideology



# Questions

Questions are welcome



Note resources cited in the talk are bookmarked in del.icio.us using tag "w4a-2006-sloan-kelly" →