

# Evaluating and using emerging technologies to enable access to MSOR content

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University of Bath

- 1 Context
- 2 MathType enabled access
- 3 InftyReader and ChattyInfty
- 4 Discussion

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# Access to MSOR content

To access MSOR content a student might require

- Reasonable adjustments made by the institution

**together with**

- Assistive technology
- Human support

# Disabled Students Allowance (DSA)

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- Help towards the cost of
  - Items of specialist equipment
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Needs assessment identifies requirements

- Assistive IT suppliers provide equipment
- Assistive technology tuition

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- Many courses contain substantial quantities of mathematical material
- As reported previously, for **mathematics**:
  - OCR software did not produce useful output
  - Screen reading technology produces incorrect speech
  - Input and manipulation of text in Word is difficult
  - Cannot input into Mind Maps



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# Patterns of use

- **Transcription/reading:**

Word document containing formulae

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- **Demonstration!**

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- Installation alongside several other assistive technologies in the AT room required extensive testing to ensure no clashes occurred.
- MathPlayer did not work with TextHelp Read & Write 7

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- Trial was advertised to students, basic instructions and examples were provided along with a survey.
- A disappointing formal response means we cannot make conclusions regarding SmartDraw
- Informal feedback from small group of students suggested that MathType was well received

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- Documents created with MathType require MathType fonts/free version to display

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- Conflict involving XP SP3 and MS Speech API4 resolved by provision of ChattyInfty variant
- Possible conflict with ZoomText
- JAWS scripts supplied but questions regarding other screen reading software? Untested

# Evaluation

- Introduced into current transcription processes to evaluate performance in day-to-day use
- Staff logged experiences when correcting OCR output
- Short series of time trials comparing processes
- ChattyInfty trial (with support) offered to small group of students, one student has now evaluated the software

# Evaluation

*For mathematics this would be the OCR of choice — to stick in a piece of paper that you didn't know the context of... knowing that InftyReader is powerful — this is the most powerful thing that I have.*

*There are some documents that this would mean I can handle quite safely on my own — especially when working with classmates etc. although if it is a long book or something like that — you'd want someone else to scan it anyway.*

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- InftyReader and InftyEditor used for all OCR when producing alternative formats for some students
- Significant reduction in time per page (depending on complexity of mathematics)
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- Significant reduction in time per page (depending on complexity of mathematics)
- Resources useful *before* correction of OCR errors
- ChattyInfty permissions must be resolved
- Seems unlikely software could be used without training

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- Can/should some of these technologies be available through DSA? How can this be accomplished?
- Are some research outcome technologies unsuited to provision through DSA? How can the situation be improved?
- Should Universities provide and support access to such technologies? How can we improve knowledge and understanding of new technologies?