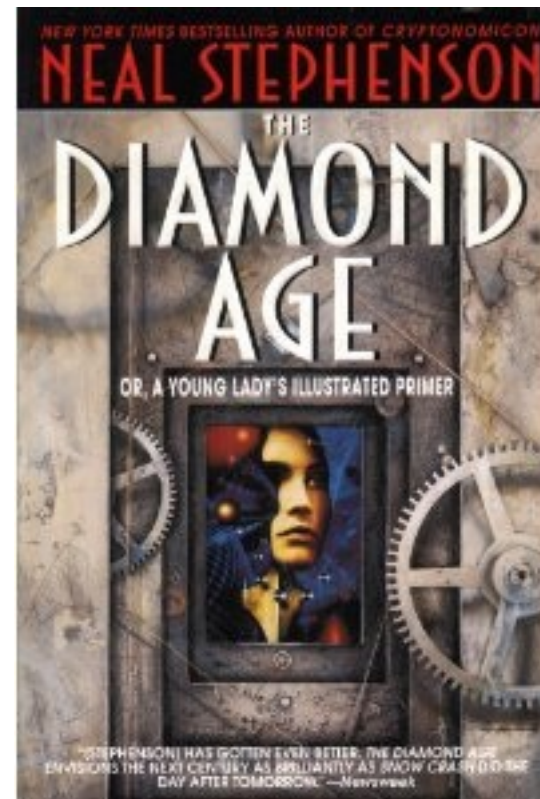
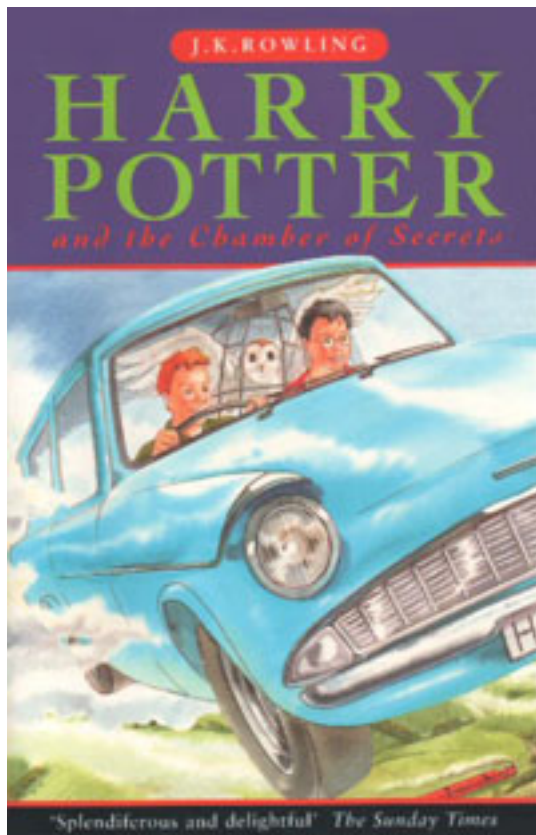


Its 2050: What am I reading?

Kim Marriott
Monash University



Magical Books



The Future

eBooks should not be digital copies of print books--we have an opportunity to radically rethink what we mean by a “book. “

Dynamic content: interactive diagrams, videos, RSS feeds etc.

Immersive: you “live” in the book

Customised content: based on the interests & needs of the viewer.

Navigation: New kinds of navigation (not just search & hyperlinks)

Collaborative, continuous authoring: Furthermore, documents can now be annotated and modified throughout their lifetime.

Embedded: semantic understanding, connected to other resources

Responsive presentation: eBooks can be viewed on a wide variety of electronic and print devices, need to adapt

Accessibility: Better support for blind and vision-impaired users to access on-line material including graphics.

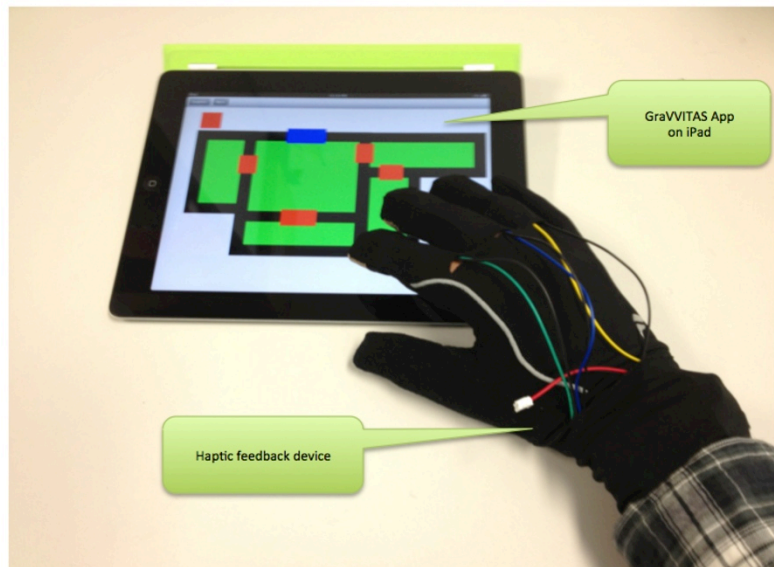
.....

Automatic Document Layout

Problem	Notes	Maturity
Optical kerning	pdfTex, InDesign	Used
H&J	TeX, InDesign	Used
Fine-tuning	Basic layout given by designer: HTML, VDP	Used
Page breaking, float placement, column balancing	Present to some degree in TeX, InDesign, etc	Possible
Logical layout	Template based or guillotine layout	Some applications are mature but overall emerging
Retargeting	Fair bit of work for mobile devices	Emerging
Table layout	Lots of recent work on this	Possible

N. Hurst, W. Li and K. Marriott. (2009). *Review of automatic document formatting*. Proc. of the 2009 ACM Symp. on Document Engineering (DocEng), ACM Press.

Accessible Graphics



Access to graphics is still very limited for blind people—an audio description is not enough for many tasks

New technologies potentially offer much better access

- Tactile graphics overlaid on a touch screen
- Low-cost refreshable braille project
- Touch screen with haptic/tactile feedback

Need content/standards for such graphics to be part of eBooks

Conclusion

Need to ensure standards allow eBooks to be more than just a digital printed book

- For layout specify *what* not *how*

Lots of recent research on *automatic layout*—great if we can engage these researchers in the development of standards.

eBooks are great boon to people who are blind or have severe vision impairment, and even bigger boon if they can provide *accessible graphics*