Chapter 3
Interactive Whiteboards and the Discourses of Transformation, Affordance, Orchestration and Participation

Alison Twiner
The Open University, UK

ABSTRACT
This chapter offers a discussion of literature regarding the use of interactive whiteboards in English and Welsh classrooms, focusing predominantly on the primary sector. Broadly speaking, a series of shifting terms can be plotted through the research, in how the IWB is characterized within the classroom. This is particularly notable in English and some Welsh primary school contexts, in line with changes in curriculum policy and government-introduced national strategy, where the IWB as a particular technological and (arguably) pedagogic tool has been championed by government funding tied to policy change. The discussion reviews shifting characterizations of IWB use in schools, focusing on four key forms of discourse in the literature: transformation, affordance, orchestration and participation. Although discourses are not replaced, the chapter highlights shifts in emphasis from the power of the technology, to the power of the tool when in the hands of teachers and learners.

INTRODUCTION
This discussion of research literature focuses on how characterizations of interactive whiteboard use in education can be seen to vary by project focus and funding source. The descriptors, evident in the research, represent differing views of the relationship between technology and pedagogy, and differing views on pedagogy as for instance authoritative, interactive or dialogic (Scott, Mortimer & Aguiar, 2006). Thus, a series of shifting terms can be plotted through the research, in how the IWB is characterized within the classroom and how the tool influences or is influenced by dominant pedagogy. This will be addressed in the context of English primary classrooms (pupils aged 5-11 years), with some research also presented from Welsh primary classrooms. In this context, the IWB as a particular technological and (arguably) pedagogic tool has been championed by government funding tied...
Interactive Whiteboards and the Discourses to policy and curriculum change and initiative. While some research has been included in this review from other sectors where salient, take-up and funding for IWBs in secondary schools has been much slower. IWBs were often installed within subject or department areas, according to individual teacher expertise or enthusiasm (Moss et al., 2007).

Curriculum and policy initiatives, including £10m in 2003-4 to install IWBs in primary classrooms discussed below, provide broad scope for research. Inevitably, however, the evaluation of the tool, new to the classroom as it was in the late 1990s and early 2000s, occurred as users were exploring its use and utility within their teaching practices. For some teachers this became an opportunity to broaden their practices; for others it reinforced traditional practices that new educational strategies were attempting to lessen, such as substantial teacher-led instruction, and learning by drill and rote practice. A research-based focus on the IWB offers a useful lens to view how conceptualizations of use and pedagogic value have changed over a relatively short period of time.

The significance and meaning of the term “interactive” in respect of an “interactive whiteboard” is much debated, and perhaps a reason for many construing interactivity as a feature of the IWB rather than a feature of user activity with and around it. In this view, some researchers and practitioners prefer to call it a digital or electronic whiteboard (e.g. Haldane, 2007). Interactivity with regard to “interactive teaching” has been defined by the UK Department for Education and Employment (DfEE, 1998a) as where “pupils’ contributions are encouraged, expected and extended” (p. 8). Research has noted however that much “interactive” use of the IWB is still at a surface level: Hargreaves et al. (2003) defined interactivity as either “surface” (quick fire question and answer) or “deep” (extended discussion). With this in mind, many teachers view interactive teaching as the use of question and answer sessions (Cutrim Schmid, 2008a). This is not a judgment on the inherent interactivity or advantages of question and answer strategies, but falls short of a dream of interactive teaching and learning where users are physically, verbally and conceptually engaged, or interacting with manipulable learning resources and content, in co-constructing their understanding. This “dream” combines Smith, Higgins, Wall and Miller’s (2005) technical and pedagogic interactivity, and Jewitt, Moss and Cardini’s (2007) technical, physical and conceptual interactivity.

This chapter shows that the roles and responsibilities ascribed to teachers and pupils can vary, depending on the role in which the IWB is cast. Features related to classroom IWB use, commonly multimodality, (fast) pace and interactivity for instance, have been identified by researchers, from different theoretical backgrounds, for a number of years. However, what these features are claimed to add to lessons and learning, or how they are utilized can differ relative to the particular political, financial and theoretical viewpoints within which they are framed. This discussion presents a review of shifts in describing IWBs in schools, focusing on four key forms of discourse in the literature, which at times co-occur: transformation, affordance, orchestration and participation.

Discourses Surrounding IWB Use

Transformation

As IWBs started entering UK schools in the late 1990s, particularly coinciding with the substantial government funding in 2003-4 to install IWBs into primary schools (Primary Schools Whiteboard Expansion project, PSWE), there arose a powerful discourse around the IWB as a “transformative” device. An article entitled, “What the research says about interactive whiteboards” collated in 2003 by the British Educational Communications and Technology Agency (Becta), stated three times in a four-page summary that the IWB could be used to “transform learning”. The focus was on how
Related Content

The Business Value of Consumer Participation through Social Media
[www.igi-global.com/article/business-value-consumer-participation-through/68807?camid=4v1a](www.igi-global.com/article/business-value-consumer-participation-through/68807?camid=4v1a)

A Culture of Survivors: SlutWalk, Third Culture, and New Media Communication
[www.igi-global.com/article/a-culture-of-survivors/136848?camid=4v1a](www.igi-global.com/article/a-culture-of-survivors/136848?camid=4v1a)

Branding Strategies for Digital Television Channels
[www.igi-global.com/chapter/branding-strategies-digital-television-channels/26981?camid=4v1a](www.igi-global.com/chapter/branding-strategies-digital-television-channels/26981?camid=4v1a)

Disruptions and Value in the Interactive Digital Media Marketplace
[www.igi-global.com/chapter/disruptions-value-interactive-digital-media/60455?camid=4v1a](www.igi-global.com/chapter/disruptions-value-interactive-digital-media/60455?camid=4v1a)