INTRODUCTION

When people refer to gender issues in information systems, they draw on an implicit understanding of what this means, but may be unaware of the history of the concept of gender or the theoretical debates that surround its development. A thorough understanding of the conceptual and theoretical issues can, however, add much to the quality of research on the gender patterns that are observed in attitudes to and usage of information technologies and in organisational practices. Similarly, a good conceptual understanding will benefit those seeking to launch practical initiatives, including increasing women’s access to and involvement with information technology. By building on the work of others, especially in the fields of psychology, sociology, women’s studies, and political theory, information-systems researchers will avoid the conceptual pitfalls into which others have fallen.

The term gender usually refers to the socially acquired characteristics of men and women. It is distinguished from sex, which has come to be defined as biological characteristics. We now conventionally use the term gender as a variable in empirical research, although this is simply dichotomised into male or female and thus is really used as a proxy for sex. This distinction between sex and gender arose as a result of debates about gender issues in Western society generally, and with the development of feminist thought in the late 20th century, gender is now widely acknowledged as a key structural principle in society and as a topic of study in its own right (Chafetz, 1997; Tong, 1989; Weedon, 1999). In this article, we briefly discuss the issues underpinning the concept of gender and how this concept has developed.

BACKGROUND

The Rise of Gender as a Concept

Until the mid-20th century and the rise of feminism, gender was not the topic of serious academic discussion. In fact, the term was rarely used. Most traditional social theories simply assumed that conventionally understood differences between men’s and women’s experiences were the result of their respective innate characteristics and did not require any theoretical explanation. Traditional social theory accepted the view that men and women were natural categories with different behavioural and psychological dispositions (West & Zimmerman, 1987).

Public debates about women’s roles gathered strength from the 1960s (second-wave feminism), and writers began to distinguish sex (the immutable biological component of human life) from gender (socially acquired characteristics of the two sexes; Eisenstein, 1984; Millett, 1971). This distinction focused attention on gender as the result of arbitrary and oppressive social practices and strengthened the critique of naturalistic or biological explanations. As social explanations for these phenomena gathered impetus, biologically based explanations were also more clearly articulated.

MAIN THRUST OF THE ARTICLE

Biologically Based Explanations of Gender

Biologically based explanations vary, but the most influential have come from sociobiology (Wilson, 1978) and its recent successor, evolutionary psy-
Approaches to Conceptualising Gender

Both approaches argue that evolutionary adaptation has led to behavioural differences between the sexes. Highly complex behaviours were attributed to evolutionary development rather than to social learning and social influences. Versions of these theories often find their way into explanations for behaviour in the popular media, typically to explain courtship, sexual, or reproductive behaviours. Biologically based explanations for the lower number of women in mathematics and computing argue that the sexes have different natural predispositions and innate skills. This approach does not recognise that this is a “complex and multi-faceted problem” with clear social forces at play (Gürer & Camp, 2002, p. 124). Such biologically reductionist explanations are, at base, ideological and are used to justify social inequalities (Montagu, 1980; Sayers, 1982).

Steven Jay Gould (2000) outlined a number of reasons why such biologically reductionist accounts are flawed. These include the following:

- The lack of evidence for biologically based claims (Connell, 1987; Fausto-Sterling, 1985; Greene, 2004; Montagu, 1980; Sayers, 1982). The variability of human behaviour within the sexes is simply too great, and the mechanisms by which sex chromosomes influence behaviour is too obscurely defined to explain complex human behaviour in biologically adaptationist terms.
- The inappropriate application of a biological evolution model to explain cultural change, which develops through diffusion, accommodation, and learning from others rather than through differentiation and selection.
- The a priori and consequently unscientific logic of biologically reductionist views. Such claims are not subjected to critical empirical testing or logical scrutiny.

Sex-Difference Research

The interest in identifying biological differences between men and women has persisted. Particularly within psychology, sex-difference research developed into a speciality (Bem, 1985). It has been subjected to strong methodological and theoretical criticism (Ashmore, 1990; Crawford, 1989; Maccoby & Jacklin, 1974). Underpinning much of the sex-difference research is the assumption that observed differences between the sexes are due to their innate dispositions. The social scientists’ job is to identify these differences and their causes. For example, girls and women are commonly believed to be more empathic, while boys and men are said to be more rational. This may be used to explain the reasons why fewer girls may take up IT; they are put off by the cold logic of technology (see Barnett & Rivers, 2004).

This approach can be criticised on a number of grounds. It has been very difficult to demonstrate empirically that differences between the sexes are significant (Ashmore, 1990; Crawford, 1989), and most differences cited are slight or trivial (e.g., ability to throw). Moreover, gender is too complex a phenomenon (culturally and historically) to be explained simply as an attribute of individuals. It may be more like a force acting on the individual than something within the individual. It has also been pointed out that sex-difference research does not adequately deal with motivations for maintaining and producing the current relations between the two genders. For example, how do we explain the resistance and hostility often expressed against women who enter nontraditional occupations such as IT (Foster, 1996)? As with biologically reductionist accounts, sex-difference research was accused of attempting to find differences in order to defend the social and political status quo (Ashmore).

Feminist Approaches to Gender

A body of scholarship emerged in the 1970s that took a critical approach to gender and sought both theoretical explanations for the social positions of men and women and a political strategy for addressing gender inequality. This field is described as feminist theory. Several strands of theory appear within the feminist tradition.

Some theorists saw gender differences as based entirely on the social shaping of individuals from infancy. People are taught to think and act in a particular way based on their physical sex characteristics. This sex role learning is seen to account for most of the observed behavioural differences between men and women. Gender socialisation (sometimes described as conditioning), in turn, limits the
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