

# Chapter 13

## Predatory Strategies in Standards Wars: On Creating Fear, Uncertainty, and Doubt

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### ABSTRACT

*In standards wars, FUD (fear, uncertainty, and doubt) is sometimes created to weaken an opponent's market position. Little is known about these strategies, their use in committee standardization settings, and how to respond to them. This chapter explores this phenomenon. It (1) identifies various FUD strategies, (2) their context of emergence, and (3) their effect on the dynamics of a standards war in a historical case study: the European standards war on digital mobile radio communication in the 1990s. The study highlights the need to distinguish "FUD as perceived" from "FUD as intended." FUD strategies and case-specific characteristics of their emergence are illustrated. The chapter shows that perceived FUD polarizes and entrenches positions of warring parties thereby affecting the course of the standards war. The authors conclude that, given its impact, reflection by corporate standardization managers on (perceived) FUD, preclusion, counter-strategies, and the downscaling of standards wars is warranted.*

### INTRODUCTION

In the early 1990s, several European member-states decided to replace their analogue radio systems for the police, ambulance and fire brigades by advanced digital systems. Their decision coincided with the aim of the Schengen Agreement to create a Pan-European network for public safety that would allow the police to use the same handset across national networks during 'cross-border surveillance and hot pursuit' (Schengen, 1990). It also concurred with activities of the European Telecommunications Standards Institute (ETSI). Supported by the European Commission, ETSI had started work on a standard for digital mobile radio communication in 1988. One of the objectives was to define a common air interface that

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would ensure that any standard-compliant terminal (e.g., handset) could run on any European network regardless of the network supplier. A number of countries considered the Tetra standard, as it was called, to be a promising means for achieving the Schengen aims.

However, in April 1994, the period in which ETSI was approving the air interface technology (TDMA) of the Tetra standard, an incompatible competing technology (FDMA) was gaining support among European countries. The latter technology had already been developed by a French company called Matra Communications and implemented in 1992 for the French gendarmerie. To improve access to the European market, FDMA advocates also attempted to get their technology formally acknowledged as an ETSI standard. Initially they seemed to succeed. Early 1995, however, ETSI dropped FDMA from the work program. This was a conspicuous decision, according to Bekkers (2001, p. 380), given the number of suppliers supporting FDMA and FDMA being the preferred choice of a number of public safety network operators. It was the beginning of a standards war.

Standards wars are fought in markets as well as in and between standards committees (Besen, 1991). The TDMA-FDMA war foremost took place in a standardization setting. It involved a committee standard of a formal standards body (i.e., an ETSI specification based on TDMA technology) as well as a *de facto* standard (i.e., FDMA technology implemented in products by Matra) that later became a consortium standard (i.e., the FDMA-based technical specification of Tetrapol Forum). It was a ‘rival revolutions’ type of standards war (Shapiro & Varian, 1999). In such wars, two factors determine the stakes and the dynamics. First, the rival technologies are *incompatible* (Shapiro & Varian, 1999). This was the case, for example, in technology wars between Blu-Ray and HD-DVD (Gallagher, 2012), e-purse systems (de Vries, 2006) and proprietary platforms (West, 2003), to name a few *de facto* standards wars. Incompatible technologies were also at stake in wars between committee standards, for example, in the field of wireless telecommunication (Lee, 2006) and for DVD formats (Dranove & Gandal, 2003).

A second and related defining factor in standards wars is the effect of rival technologies on *network externalities*. The term refers to an increase in value of the network with every new connected network user (Farrell & Saloner, 1985). Rival networks based on incompatible technologies or standards cannot exploit each other’s externalities. For example, owners of a certain smart phone cannot usually make use of the infrastructure of a different smart phone for spare parts and customer services. In past studies, the workings of network externalities was a main reason to presume that in IT markets only one competing technology would be able to survive (‘winner-takes-all’). While more recent work indicates that there may be room for two or more standards (Singh, 2009), the presence of network externalities has been shown to heighten the stakes in standards wars. Given these stakes, “[w]hen it comes to standards wars, traditional principles of strategy, while helpful, are not enough” (Shapiro & Varian, 1999), and some companies will turn to predatory market strategies.

The predatory strategies addressed in this chapter are those that create Fear, Uncertainty and Doubt (FUD), a category referred to by Pfaffenberger (2000). To our knowledge, no other studies have as yet analyzed standards wars on the use of predatory market strategies and FUD strategies, in particular. Perhaps understandably so. The term ‘FUD’ is foremost referred to in business magazine and trade journal articles to capture a class of industry strategies that are perceived to be unfair and used to publicly denounce certain market practices. That is, it is used in a decidedly normative and non-scientific way. The challenge for scientific research on FUD strategies is how to take in and address the inherent subjectivity involved in attributing unfairness. This point is revisited when defining FUD strategies in the next section.

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