

The end of the information frontier

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Abstract The possibility now exists of capturing a cradle-to-grave record of everything a person says or does. No longer must a personal history be a partial picture. Technology has made it possible to record, process, store, and retrieve all the text, sounds, and images that are required to paint a complete picture of an individual's life. The efforts of future historians will be directed more to forgetting than to remembering. By default, society will forget nothing. For almost all of human history, remembering has meant the judicious selection and organization of observations about events and people. There used to be an information frontier beyond which the past was a *tabula rasa*. That information frontier has gone the way of the dodo. The social memory of events in an individual's life is not only detailed but permanent. Although physical storage is fallible and changes in technology may make some devices effectively unreadable, these limitations are more than made up for by the negligible cost of duplication and distribution in a network. The record of one's triumphs and tragedies will haunt one forever. Gone is personal privacy since facts buried in the past can be uncovered at any moment. Gone is personal memory since it is easier to rely on the external social memory of cyberspace. In what follows, we explain these observations and trace their consequences.

Keywords Digital media · Social memory · Personal memory · Social knowledge · Virtual directed · Data surveillance · Personal privacy · Transient identity

1 The electronic fishbowl

The existence and accessibility of vast amounts of information about ourselves increases our exposure and makes it difficult to define a private space (O'Harrow 2005). Waves of innovation since the first computers were introduced in government agencies and large corporations in the 1950s have relentlessly buffeted personal privacy. The threat posed by the systems of federal and state governments, schools, banks, insurance companies and large organizations generally, pales into insignificance compared with the peering eyes of the electronic marketplace (Weitzner et al. 2008).

Even before the Internet, marketing operations have posed a threat to personal privacy. Dun and Bradstreet is a notable example of a large company whose business is to keep track of vast numbers of people. This company has a database consisting of information on "approximately 315 million living US individuals as well as 85 million deceased individuals" (Dun and Bradstreet 2011). Dun and Bradstreet uses this database in conjunction with its consumer-market research services. Within this database is a record for practically every single household in the entire United States. The database is a valuable resource because it enables Dun and Bradstreet to conduct market surveys for companies introducing new products or attempting to stimulate sales of existing products.

Databases such as the one maintained by Dun and Bradstreet figure prominently in all aspects of marketing. For example, consider the introduction of a new product with characteristics a, b, c. By an appropriately designed search of its files, a database provider could identify all the households in the country whose buying profile shows a preference for products with characteristics a, b, c. It is possible to do this because the databases contain detailed

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