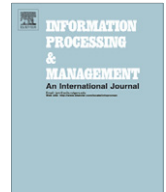




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## CNI: Compelled Nonuse of Information

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### ABSTRACT

*Purpose:* The study reported in this paper reviewed the literatures of information science, psychology, sociology, political science, education, and communication science to analyze *Compelled Nonuse of Information (CNI)*. This study of a behavior defined by its absence (i.e., the *not* using of information) involved the development of a methodology consisting of an iterative performance of a nine-step heuristic leading to a retroductive recognition of absence, here termed RRA.

*Principal results:* The study concluded with a hierarchical taxonomy of the mechanisms that compel a person not to use information. The six primary mechanisms are:

1. Intrinsic somatic (bodily) conditions
2. Socio-environmental barriers
3. Authoritarian controls
4. Threshold knowledge shortfall
5. Attention shortfall
6. Information filtering.

*Major conclusions:* The resultant taxonomy of CNI appears here as a comprehensive checklist with which information workers such as the teacher, librarian, advertiser, politician, or health care professional can respond efficiently and effectively to situations of nonuse of information. For example, a teacher might ask: "Why are students not responding to what I present?" Further, the social implications of any *compelled* behavior touch the very basis of the social contract, and this paper presents a first step toward understanding the compelled aspects of CNI.

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## 1. Introduction and principal results

*"The strongest human instinct is to impart information. The second strongest is to resist it."*

Widely attributed to Scottish author Kenneth Grahame [1859–1932].

Information science, since its inception, has studied information *use*, as demonstrated by a survey of the literature of information science and related disciplines. For example, the *Annual Review of Information Science and Technology (ARIST)* published Allen's review of information needs (1969, p. 3). Prior reviews had focused on information use via information *systems* such as index card files, catalogs, and classification systems, but Allen's review centered on the *user*. In 1986, ARIST published a review by *Dervin and Nilan (1986)* of studies between 1978 and 1986 that followed this emphasis on

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information use and user, an emphasis called by some a “user turn.” Dervin and Nilan (1986), Westbrook (1993), Westbrook (1995), Bates (1999), Wilson (1994, 1981, p. 3, 1997, 1999a, 1999b, 2000), Case (2002), and Fisher, Erdelez, and McKechnie (2005) comprise a very small sample of this “user” literature.

Over the last 60 years, however, less than 1% of the literature of information science has addressed information nonuse, whether from a systems or a user viewpoint (Houston, 2009). Notable reviews of nonuse appear in Zipf (1949), Dervin (1973), Wurman (1989, 2001), Wilson (1997), Case (2002), and Houston (2009). No review other than Houston (2009) has studied the subset of nonuse of information termed *Compelled Nonuse of Information* (CNI).

In this paper, I treat nonuse of information as the absence of a behavior, specifically, the absence of use of information. The study reported in this paper established the characteristics and boundaries of CNI and related the elements of CNI, one to another, in the hierarchical taxonomy of Fig. 1. Full explanations and examples of each element of the taxonomy appear in Houston (2009).

I believe that the publication of this taxonomy will provide information workers with a comprehensive checklist that will facilitate their management of situations involving CNI. For example, the educator could use the checklist to determine possible reasons that a student does not learn. The advertiser could use the checklist to evaluate why the public appears to be unaware of the advertiser’s message. The social worker could consider various reasons that a client remains in a societally disadvantaged position. The psychiatrist could use the checklist to weigh the risks and benefits of intervention in cases where a patient’s nonuse of information permitted the patient to cope with intolerable thoughts or memories. Having a comprehensive checklist and, therefore, access to more options, these information workers would be better prepared to make the most efficient and effective response.

**Figure 1, Part 1: SOMATIC (BODILY) BARRIERS** to information use  
(paracognitive factors working *on* the individual)

### 1 Intrinsic somatic conditions

- 1.1 Congenital abnormalities and subsequent trauma leading to somatic impairments
  - 1.1.1 Toxic influences in pregnancy, such as alcohol
  - 1.1.2 Maternal psychological disturbance, such as stress
  - 1.1.3 Perinatal risk factors, such as low birth weight
  - 1.1.4 Toxic chemicals from the environment, such as lead and mercury
  - 1.1.5 Infectious causes, such as Lyme disease
  - 1.1.6 Selective deficiencies, such as iodine deficiency
  - 1.1.7 Head injury
  - 1.1.8 Neglect or broad-spectrum malnutrition
- 1.2 Trauma that leads to psychological predispositions
  - 1.2.1 Dissociation (traumatic disruption of cognition or perception)
  - 1.2.2 Homeostasis (maintenance of the body’s internal environment)
  - 1.2.3 Neuro-chemical mandates (psychotropic drugs or alcohol)
  - 1.2.4 Advanced age
- 1.3 Intrinsic psychological predisposition mismatching a specific situation
  - 1.3.1 Gardner’s theory of multiple intelligences
  - 1.3.2 Miller Behavioral Style Scale
  - 1.3.3 Avoidant coping style
  - 1.3.4 Sex differences
  - 1.3.5 Limits of short-term memory, or eidetic v. symbolic imagery
- 1.4 Intrinsic somatic conditions of uncertain origin, such as those listed in the American Psychiatric Association’s *Diagnostic and Statistical Manual* (DSM)

### 2 Socio-environmental barriers

- 2.1 Geographical or temporal isolation
- 2.2 Inadequate or malfunctioning information systems
- 2.3 Lack of capital, relative to the information source
  - 2.3.1 Lack of economic capital (too poor to access information)
  - 2.3.2 Lack of cultural capital (too uneducated to access information)
  - 2.3.3 Lack of social capital (social status prevents access to information)

### 3 Authoritarian controls, listed from greatest to least intentionality

- 3.1 Censorship (including restrictive information systems)
- 3.2 Disinformation (deliberate provision of incorrect information)
- 3.3 Reward or punishment
- 3.4 Explicit approval or disapproval
- 3.5 Tacit approval or disapproval
- 3.6 Misinformation (accidental provision of incorrect information)
- 3.7 Bureaucratic inertia
- 3.8 Mistakes

**Fig. 1.** The taxonomy of conditions leading to CNI.

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