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A Heuristic Evaluation of the Usability of Infants



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## A Heuristic Evaluation of the Usability of Infants By Scott McDaniel

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For your consideration...

Results from a heuristic evaluation of infants and their user interface, based on direct observational evidence and Jakob Nielsen's list of 10 heuristics from www.useit.com. All ratings from 1 to 10, with 1 being worst and 10 being best.

**Visibility of System Status 6.** While it is easy enough to Newsletter Archives determine when the infant is sleeping and eating, rude noises do not consistently accompany the other primary occupation of infants. Further, infants can multitask, occasionally performing all three major activities at the same time.

> Match Between System and the Real World 3. The infant does not conform to normal industry standards of night and day, and its natural language interface is woefully underdeveloped, leading to the error message problems cited below.

**User Control and Freedom 2**. The infant's users have only marginal control over its state. While they can ensure the availability of food, diapers, and warmth, it is not often clear how to move the infant from an unfavorable state back to one in which it is content. When the default choice (data input) doesn't work, user frustration grows quickly.

Consistency and Standards 7. Most infants have similar requirements and error messages, and the same troubleshooting procedures work for a variety of infants. Cuteness is also an infant standard, ensuring that users continue to put up with the many user interface difficulties.

**Error Prevention 5**. Keeping the infant fed, dry, and warm prevents a number of errors. Homeostasis is, however, a fleeting goal, and the infant requires almost constant attention if the user is to detect errors quickly and reliably. All bets are off if the infant suffers from the colic bug or a virus.

**Recognition Rather Than Recall 7**. The various parts of the infant generally match those of the user, though at a prototype level. The users, therefore, already have in place a mental model of the infant's objects. The data input and output ports are easily identifiable with a minimum of observation.

**Flexibility and Efficacy of Use 2**. Use of the infant causes the user to conform to a fairly rigid schedule, and there are no known shortcuts for feeding, sleeping, and diaper buffer changing. Avoid buffer overflows at all costs, and beware of core dumps! While macros would be incredibly useful, infants do not come equipped with them. Macro programming can usually begin once the infant attains toddler status.

**Aesthetic and Minimalist Design 5**. As mentioned earlier, infants have a great deal of cuteness, and so they score well on aesthetic ratings. Balancing this, however, is the fact that the information they provide is rather too minimal. Infants interact with the user by eating, generating an error message, or struggling during buffer updates.

Help Users Recognize, Diagnose, and Recover from Errors

**1**. Infants have only a single error message, which they use for every error. The user, therefore, is left to diagnose each error with relatively little information. The user must remember previous infant states to see if input is required, and the user must also independently check other routine parameters. Note the error message is not the same as a General Protection Fault. That is what resulted in the infant in the first place.

**Help and Documentation 1.** While some user training is available from experts, infants come with effectively no documentation. If users seek out documentation, they must sift through a great deal of conflicting literature to discover that there are very few universal conventions with regard to infant use.

Mean score 3.9

This user has been up since 3:30 this morning (perhaps you can tell), and still has three to five months to go (he hopes) before stringing together 8 hours of uninterrupted sleep.

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