

COMPUTERIZED CREATION AND
DIFFUSION OF FOLKLORIC MATERIALS

William S. Fox

Folklorists have been dismayingly slow in collecting and analyzing "computer lore," that is, the artifacts themselves, let alone addressing issues that such materials raise. Perhaps there is nothing surprising about this slowness. Folklorists may be as prone as other intellectuals and academics to neglect the most significant of social changes within which their own lives are embedded, and perhaps those humanistic strengths that serve folklorists so well in other contexts here have the unfortunate tendency to turn their attention away from new technologies. In any case, our discipline's

very subject matter--traditional communications among people--makes the neglect of communications technologies such as computers all the more lamentable.

When folklorists have considered computers, they have usually asked what computers can do for them as professional folklorists rather than how computers are involved in actual processes of folklore. However limited, such questions are certainly appropriate, for computers can do much for folklorists in such areas as archiving, information retrieval and processing, concordance and collation, and textual analysis. There is already a fairly large and rapidly growing literature on such materials.

All this is for the good. Folklorists are discovering that computers can greatly reduce the drudgery of some folkloric research and, more importantly, can expand the scope of our studies, provide new approaches to old issues, and raise new questions in the study of folklore. Even as early as 1949, Bertrand Bronson wrote in the *Journal of American Folklore* of "Mechanical Help in the Study of Folk Song,"² and although Bronson's suggestions now have been rendered primitive by technological advances others have continued in this tradition. Colby (et. al.) 1963 "Comparison of Themes in Folktales by the General Inquirer System"³ offered an early example of computers in folkloric research. Although sharply criticized at the time by Alan Dundes,⁴ Colby and his colleagues' general approach to textual analysis has been followed to good effect by many others during the last twenty years. A 1979 Library of Congress "preliminary bibliography" of "The Use of Computers in Folklore and Folk Music" contained well over 100 items.⁵

These developments are certainly wel-

come, but they do not concern the roles played by computers in the dynamics of folklore. To be sure, there has been a bit of interest in computerlore itself--that is, in some of the products of folklore processes involving computers. Although a systematic, theoretically based typology of such material is yet to be developed, a provisional classification might distinguish among folklore about computers, folklore derived from computer applications, and folklore created using computers. Folklorists such as Michael J. Preston and Roger Dean Beatty have collected tales, legends, jokes, superstitions, and folk art of each type.⁶ Much of this material is oral, although a substantial, disproportionate amount is some form of paperlore--computer art such as the well-known Snoopies or calendars, for example, or cartoons, or Xeroxed broadsides about computers. Much of this material is found among persons with little or no knowledge of computers and, indeed, reflects their ignorance of and anxieties about new electronic technologies. As Michael Preston has pointed out, beginning computer students seem especially interested in producing Snoopies, Santas and reindeer, and other computerized folk art, although the programs to produce such materials usually are written by more advanced students.⁷

Other, far more intrinsically interesting folklore is occupational lore of the esoteric subcultures of computer operators, programmers, system engineers, and other specialists with high levels of computer expertise. Roger Beatty has written, for example, about the "bit bucket" into which fall the truncated digits and other missing numerical information inevitably lost by computers.⁸ But most of this lore remains unstudied by folklorists. There are "trick programs"

that stall, issue demands ("FEED ME A COOKIE"), and refuse to resume until the user figures out the "trick" (entering "A COOKIE" on the keyboard).⁹ Tales of computer escapades and crimes abound, sometimes mixed with media reports and literary accounts. Folklorists who work with computers find much that is familiar--the computer as trickster, or the computer as big dummy, or the omniscient computer and so on. Motif and type indices will continue to be useful with these technologically based materials.

Research treating the content (i.e., textual aspects) of computerlore will become increasingly important as computer technologies develop and especially as personal computers become more widespread and integrated into social relationships. This research site is most strategic in that it allows folklorists to observe the development of a new body of folklore virtually from its beginning. Folklore surrounding personal computers -- Apples, for example -- provides a case in point; what must be called "Applelore" is quickly developing and merits attention from folklorists. It is extremely important that folklorists direct their attention to such developments as soon as possible to take full advantage of the newness of such folklore. It is also essential, however, that folklorists not limit their attention to the products of folkloric processes that involve computers, but also consider the roles of computers in the dynamics of folklore.

Let me illustrate what I am suggesting in briefly describing a folklore process in a New York State public high school. I choose this school only because of

its convenience, certainly not because it provides a dramatic example of computers in a folkloric process. Indeed, quite the contrary, it has the methodological advantage of being on the "wrong" side of my "hypothesis" suggesting the significance of computers in the creation and diffusion of folklore. Until recently, the school offered only elementary instruction in computer programming and use: one course in the language BASIC offered as an elective to juniors and seniors. The hardware is minimal: until recently, several Apple IIs, a few Commodore Pets, and two aging DECWriters (paper terminals) connected to a PDP-11 mainframe located elsewhere. The PDP-11 mainframe serves several dozen high schools and trade schools in the region.

High school students with even minimal knowledge of computers have access to files -- public files available to all users -- that store information. Students can create and retrieve these files, that is, they can both produce these files and find out what information is stored in them. Students can also edit most of these files, for example, they can add information that will then be available to subsequent users who retrieve the files. Information in files is retained until someone -- a teacher, for example, -- chooses to delete or eliminate particular information or even entire files.

This system of public files is intended to encourage students to explore uses of the computer -- to become familiar with the terminal, learn simple programming, and so forth -- and to use common files that contain programs of general interest pedagogical interest. The system does, in fact, serve such purposes. Public

files, however, are also used to diffuse folklore. What some files contain are easily recognized folklore genres, as well as a few less familiar forms. Students who enter folk materials in these files sometimes classify items themselves. For example, one public file contained only dead baby jokes; another, only Helen Keller jokes; still another, only dirty jokes. Other files, somewhat different in nature but still very much folkloric, contained simple programs for computer graphics, including a rather spectacular nude drawn with words that explicitly described parts of her well-endowed body. Another file drew a copulating couple--perhaps the blond with a male companion? Still other files contained programs to generate folkloric form letters such as a love letter "personalized" with information supplied by the user (see Appendix).

The most significant aspect of this folklore is not its content, although that content may itself be strongly affected by the use of computers and is well worth study in its own right. The content is for the most part what one might expect among adolescents and offers a particularly convenient, albeit limited way to tap into current adolescent folklore. A folklorist need only log on a high school computer and ask for files in which folkloric materials are stored--a simple enough procedure that certainly does not replace but does supplement more traditional and time-consuming methods of collecting adolescent lore. Lore collected this way is subject to obvious socioeconomic and probably gender biases. As a practical matter, finding relevant materials in computer files is greatly facilitated by a knowledgeable informant. Still, this approach provides the folklorist with a new and useful research tool.

Much more significant than the content is the medium used by these students to create and diffuse folkloric materials. An oral network among high school students is supplemented by a computerized network. The materials circulating in the latter network exist essentially in electronic form in the computer's memory or, almost equivalently, on some storage medium such as tape, disk, or diskette. The use of paper is almost incidental. Paper has the advantage of allowing a person to carry off the material and read it away from the terminal, or perhaps to share it with others or to post it on a wall. But the material need not appear on paper, and for this fundamental reason it cannot be treated simply as a subtype of paperlore. Most commonly, files containing folkloric material are read on video display terminals (in effect, high resolution television sets hooked up to a computer) and do not appear at all on paper. Students participate in this folk network by calling up files, reading them, and perhaps adding to them on a video screen or a paper terminal.

I have offered a school computer network as a simple example of this process. The more general that it takes is messaging or electronic mail which can occur in other settings including the work place and the home. Folkloric materials--jokes, riddles, whatever--are stored in a "bulletin board directory" from which they can be retrieved by persons using terminals hooked into the system. The students at the school I described communicate through the computer with students at other schools sharing the mainframe computer. It is highly unlikely that the students have ever met face-to-face but they exchange jokes, programs for producing computer art, and so on. The network

is a fairly large one. It potentially includes all computer students and their friends at the schools in the system, although it is clear that in practice a few schools and a few students in each of these schools account for the bulk of the computerized interaction.

Again, such networks may involve homes and work places as well as schools, and younger children and adults as well as teenagers. These videotext networks are still in their infancy. They are now being tested on relatively large scales by about a dozen companies interested in establishing them in homes. There is little doubt, however, that such networks will expand in the near future. Several colleges and universities already suggest possible developments. Clarkson College, a science and engineering oriented school of about 3,600 students in upstate New York, is proceeding with plans to give each incoming freshman a terminal for his or her work at Clarkson. Over a four-year period all students would be equipped with computers. The computers will all interface, that is, they will all be hooked together, allowing any student to communicate via terminals with any other student. Similar plans have been announced by Carnegie-Mellon, R.P.I., and Drexel Institute. The possibilities for folkloric studies of such networks are staggering.

Arguing the now familiar claim that the medium is the message, Marshall McLuhan wrote two decades ago that "our new electric technology that extends our senses and nerves in a global embrace has large implications for the future of language... Today [1964] computers hold out the promise of a means of instant translation of any code or language into any other code or language."¹⁰ McLuhan was correct about

language and the uses of language for folklore, thus realizing his promise of twenty years ago. We need not endorse all the excesses of McLuhan's notions to agree that the medium at least shapes the message. Harold Innis and others knew that well before McLuhan's popularization. Computer effects on folklore are best assessed inductively, by examining empirically the relationship between computers and folklore.

First, I suggest that computers tend generally to favor shorter genres of folklore and to abridge folkloric materials of all sorts, including those that correspond to oral types of lore (e.g. jokes, riddles, legends). I suspect that this abridgment is one aspect of a more general abridgment of folkloric materials in our culture. Certainly the general hypothesis demands much more study. In any case, whatever abridgment takes place need not affect the total quantity of folkloric communication since increasing numbers of shorter items may well compensate for a decrease in the lengths of individual items.

Second, I suggest that computerized folklore changes somewhat more slowly than orally transmitted folklore. This it shares in common with paperlore and most other non-oral forms of verbal folklore. I suspect that variants of computer-based folklore are more likely to develop in discrete, discontinuous "jumps" as materials are transferred from one computer system to another. On any given system, the material is likely to remain for relatively long periods with little or no change. Again, I suggest that this tendency towards stability or even "standardization" may be true generally of non-oral folklore. Computerlore thus provides an excellent "test case" for what may be a more generalized folkloric tendency.

Third, the use of computers to create and transmit folklore may lead to the development of new genres or the growth of what were previously minor forms of folklore. The computerized "love letter" mentioned previously, illustrates this tendency. Although such a letter is certainly not unprecedented (similar items are found, for example, in Dundes and Pagter's collection of paperlore¹¹), computers enormously facilitate the production of such materials.

Fourth, computerized folklore tends to be highly anonymous and individualistic--perhaps even more so than paperlore. It resembles graffiti in this respect. The creators and disseminators of material cannot determine recipients with any precision and they cannot be identified. Materials are mediated by the computer and appear as anonymous contributions. Consequently, disseminators of a joke for example, can only anticipate or indirectly experience reactions to it. With graffiti, creators of computerized folklore cannot easily control access to materials. The best they can do is to place general restrictions on who may gain access, but in doing so they unnecessarily and undesirably restrict availability. This defeats the purpose of creating the folkloric materials in the first place.

Fifth, at least some forms of computerized folklore may distinguish more sharply between producers and consumers of folkloric materials than is the case with traditional oral folklore. Although "storytellers" relate oral material to an "audience" and the role of teller of tales tends to be highly specialized in many folk groups, this asymmetry may be more pronounced with computer-mediated folklore. Computerized art perhaps provides the best example. Although such products require rather minimal computer

expertise (they often do not require an ability to write even simple programs), they usually demand a bit more computer experience than novices have. Nonusers and beginners are more likely to form an audience for such materials produced by more practiced computer users.

Sixth, computer-based folklore may be less strongly related to demographic dimensions of the social structure than are most forms of folklore. Most folklore requires oral or at least face-to-face communication. Such social interaction tends to be strongly related to traditional dimensions of the social structure such as age, ethnicity, race, religion, occupation, and region. The "folk" for computer-based folklore may have little or nothing in common except access to a common computer and correlates of that access. Although such correlates certainly may be substantial, computer-based folklore tends to cut across traditionally strong social cleavages.

Finally, computer-based folkloric materials highlight the relationships between folklore and the problematics of social control. Indeed, they provide a most strategic site for studying the "politics" of folklore. As with other kinds of folklore, materials created and diffused with computers can be used--indeed, are used--to express personal and collective problems, register grievances, and express resentments and frustrations involving "the system" (meaning, in this case, the social rather than the computer system). It is surely no accident that persons who supervise computer centers identify one of their major tasks as curtailing "unauthorized" uses of computers, including folkloric materials (although, of course, they do not use such terms). To be sure, their interest in such matters is often

justified on technical or on moral or quasi-moral grounds. There is much talk of the need to conserve limited disk space for the storage of files, and fears are expressed about the accidental discovery of morally objectionable material by unsuspecting computer users. The extent of these concerns, however, seems far beyond any such rationales and may reflect a more basic need to maintain general control of an interactive network. This element adds interest and motivation to folklore creators out to "beat the system."

Such matters and many others involving computer-mediated folklore need study. In calling attention to such materials and suggesting distinctions between them and other kinds of folklore, I am not suggesting any rigid classification scheme. There is no doubt whatsoever that folkloric materials created and diffused with computers interact in complex ways with other forms of folklore, including oral forms. Jokes are told orally, for example, put into computer files, and then taken off to continue through oral networks and so on. At the same time, computers as a medium of communication alter the form and substance of such materials in processes of interest to folklorists.

The study of computer-related folklore demands much of folklorists. Folklorists rarely have the chance to observe the emergence of a new genre. Computer related folklore offers just such an opportunity, but only if folklorists give immediate attention to computerlore. As suggested earlier in this paper, the study of such materials requires new classification schemes to distinguish, for example, among folkloric materials about computers, materials developed by professional computer users, and materials transmitted on computers by more casual computer users.

The concept of variants must be adapted to the unusual, perhaps even unique situation in which folkloric variations are generated by machines rather than people. The impact of medium and mode of transmission on both the content and development of folklore must be examined. The changing relationships of culture to the social structure implied by computer-related materials must be explored. And most importantly, as computer-related materials probe and perhaps expand the boundaries of the folk experience, folklorists must reconsider the very nature of folklore itself in a technologically advanced society.

NOTES

* An earlier version of this paper was presented at the 1982 meeting of the American Folklore Society in Minneapolis, Minnesota.

1. See, for example, Michael J. Preston, "Computers in Folklore," *Tennessee Folklore Society Bulletin* 43 (March 1977): 14-22; and Library of Congress, Archive of Folk Song, "The Use of Computers in Folklore and Folk Music: A Preliminary Bibliography" (Washington, D.C.: 1979): 12pp.
2. Bertrand H. Bronson, "Mechanical Help in the Study of Folk Song," *Journal of American Folklore* 62 (April-June 1949): 81-86.
3. Benjamin N. Colby, George A. Collier, and Susan K. Postal, "Comparison of Themes in Folktales by the General Inquirer System," *Journal of American Folklore* 76 (October-December 1963): 318-323.
4. Alan Dundes, "On Computers and Folktales," *Western Folklore* 24 (July 1965): 185-189.
5. Library of Congress, "The Use of Computers in Folklore and Folk Music."
6. See Michael J. Preston, "Xerox-lore," *Keystone Folklore* 19 (1974): 11-26; and Roger Dean Beatty, "Computerlore:

The Bit Bucket," **New York Folklore** 2 (Winter 1976): 223-224.

7. Preston, "Xerox-Lore," p.11.

8. Beatty, "Computerlore: The Bit Bucket," p.223.

9. A reviewer of an earlier version of this paper suggested the importance of such programs and the "cookie" example.

10. Marshall McLuhan, **Understanding Media** (New York: Signet, 1964), p.83-84.

11. Alan Dundes and Carl R. Pagter, **Work Hard and You Shall be Rewarded: Urban Folklore from the Paperwork Empire** (Bloomington: Indiana University Press, 1978).

APPENDIX

"LOVE LETTER" COMPUTER PROGRAM

```

10  REM *** THIS PROGRAM PRINTS A LOVE
    LETTER
20  INPUT "WHAT IS YOUR FIRST NAME AND
    HEIGHT (IN INCHES)";X1$,X2
30  INPUT "WHAT IS YOUR GIRL FRIEND'S
    NAME AND HEIGHT (IN INCHES)";X3$,X4
40  INPUT "WHAT COLOR HAIR AND EYES
    DOES SHE HAVE"; X5$,X6$
50  INPUT "WHAT IS HER BEST FEATURE";Y3$
60  INPUT "WHEN DID YOU MEET HER AND
    WHERE";X7$,X8$
70  INPUT "WHAT DO YOU LIKE TO DO
    TOGETHER";X9$
80  INPUT "WHEN DID YOU SEE HER LAST";Y2$
90  IF X2 >= X4 THEN Y1$="DOWN" ELSE Y1$=
    "UP"
100 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT
110 PRINT "MY DEAREST ";X3$
120 PRINT TAB(5);"I HAVE MISSED YOU
    SINCE ";Y2$
130 PRINT "I LOVE TO TOUCH YOUR ";X5$;
    " HAIR"
140 PRINT "I LOVE TO GAZE ";Y1$;" INTO
    YOUR BEAUTIFUL ";X6$;" EYES."
150 PRINT "BUT MOST OF ALL I LOVE YOUR
    ";Y3$
160 PRINT "MY LUCKIEST DAY WAS WHEN
    I MET YOU AT ";X8$
170 PRINT " DO YOU REMEMBER IT WAS ";X7$

```

```
20
180 PRINT "TONIGHT LETS GET TOGETHER
AND ";X9$
190 PRINT "UNTIL THEN ALL MY LOVE.";
200 PRINT TAB(10);X1$
210 END
```