

Children's interests in news: On-line opportunities

by M. Evard

Children's perspectives on news are presented. The context of the discussion includes computer networks, interest research, and constructionism. Projects are categorized by their relationship to children's interests in news and other topics. Fourth- and fifth-grade children's participation in news-related aspects of the NewsMaker project are presented to demonstrate the possibilities that arise when children are able to create and discuss news on line.

In the past few years, members of the news industry have been developing new ways to present and distribute large amounts of time-dependent information. In parallel with these developments, many studies of news consumption have been conducted and analyzed in-depth. These studies have revealed that young adults are not paying as much attention to news as their elders. For example, the 1990 Times Mirror Center study¹ focused on how news was viewed by people in the United States over the age of 18. Comparisons with earlier studies showed that Americans between the ages of 18 and 30 "know less and care less about news and public affairs than any of the generations in the past fifty years or more."

It is unfortunate that we do not have a better picture of children's perspectives of news. Is interest in news something that is only possible during adulthood? Are children ever interested in news? Are they aware of it? If they are exposed to or interested in news, what should be done? How will their awareness affect them?

Some researchers and educators have begun asking questions such as these. Also, there are many new projects involving children and news, a significant number of which are built upon new technologies. Computers and networks are forming an important part of these projects for various reasons:

1. News involves large amounts of information on many topics from distributed locations. Because children's interests vary widely, simply cutting down the news to a page or two would not be sufficient. It can be difficult to make large amounts of information readily available to children.
2. It is difficult to connect children from different cultures. For example, many of the children who attend public schools in Boston do not leave their homes after school, so library visits are not possible. Even those in more comfortable communities do not have easy ways of making or maintaining friendships with children outside their physical area. Networked computers in their homes or schools could make a significant difference to these children.

On-line projects can go far beyond simple transmission of current news, however. Older news stories can be archived and linked to newer ones, so children can

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find more complete information on the topics that interest them. Connections can also be made from the topics to related outside sources, such as organizations, encyclopedia articles, and books. Each child's ability to choose what to read and learn about can be supported. And people can be creators and constructors of their own information, rather than being limited to the role of consumers.

This paper begins with a description of fifth-grade students' relationships with and views of news. The theoretical frameworks of interest research and constructionism are then presented to provide lenses for analysis of news-related projects for children. On-line projects are categorized by the way their designers appear to view the relationship between the children and the content. Also described is NewsMaker, an ongoing project at a Boston, Massachusetts, public elementary school in which children are able to use an on-line system to write about topics of their choice, including news. Aspects of these projects are used to discuss possibilities for additional support for children's interests in on-line news projects.

The "What Is News?" project

In May and June of 1993, I interviewed every student from each of two fifth-grade classes at a Boston public school. One of the classes was an advanced-work class; eleven of the students were boys and nine were girls. The other was an integrated class comprised of both special education students and "regular" students; there were seven boys and eleven girls in this classroom. The interviews were transcribed from videotape and categorized by themes.

I began each individual interview by telling the child that I was a student trying to learn about news and what fifth-graders thought about it. My first question was always "What is news? If you had to define 'news' to a third-grade student, what would you say?" Questions about other topics occurred when they best fit in each discussion.

Definitions of news. Each child gave a content-based definition of news. The most common definition included three elements: an event, a location, and communication. As one boy stated: "News? I'd say news is stuff that happens mostly around the world, and when it happens people tell other people ...". Information about an event was not a sufficient definition for most of the children; sharing the information seemed to be what made it into news. Several students

indicated that the "hearers" needed to be ignorant of the information for it to be news. Most of the students limited news to present events, although one boy said that anything in history was news.

There were a few students who did not provide general definitions of news but gave examples of things that they considered news. These examples included fires, discoveries, weather, killings, robberies, things that happen to the President of the United States, and "mothers leaving their kids alone in the house." None of them simply said "everything in the newspaper" or "whatever is on the television news," however. On the contrary, a few students pointed out that there are things in the newspaper that they did not consider news. All of the children based their definitions of news on the information content, rather than on the medium of presentation.

When speaking of "the news" on television or in newspapers, however, many children explained that they thought news stories often only revealed one side of an issue.

Interests in news. Every one of the students claimed an interest in some aspect of news. When speaking about his or her topic of interest, each child was obviously engaged in the issues and wanted to learn more. Most students did not become animated when discussing news in general; their enthusiasm was reserved for the topics they found intriguing. The connection between the child and the information was crucial; if a child had no personal motivation to know about a topic, no active interest was demonstrated.

Sports was the topic most often mentioned as interesting; over half of the children (14 of the 18 boys and 7 of the 20 girls) said they looked for sports in the news. Although most simply said they liked sports news, three of the girls and two of the boys listed particular sports such as swimming, basketball, and gymnastics, and one boy specified that he was only interested in seeing news about sports that he himself played. The weather and different aspects of violence were both mentioned as interesting by over one-third of the children.

The types of violence that the children considered interesting ranged from large-scale events such as the war in Kuwait to lesser occurrences such as "a kid being hurt." Inner-city murders were the most frequently mentioned when speaking of violence; words such as "killings" and "shootings" were commonly

used. The location of violent events made a difference to some of the children; many were more interested in local events, while some said they would rather hear about things that happen in other places.

The 1992 presidential campaigns and other national political events were considered interesting by ten of the children. Another ten said that things about other countries were interesting; events in Bosnia, Somalia, and Haiti were mentioned specifically, and the children explained why they were interested in these countries. Nine children said they looked for news that involved their school. Eight children said they looked for news about other children. Seven children said they liked to read through headlines and the front page of the newspaper.

There were many topics that were considered interesting by only a few children. These include “human interest” stories, sightings of UFOs (unidentified flying objects), volcanoes, diseases, science, space and the space program, inventions, technology, dangerous animals, endangered animals, travel, information about new movies, jail-related stories, and jobs.

Discussing news. Even though common interests existed, only one of the students said she ever discussed news stories with others her age. When asked why they did not discuss news with other students or friends, the most common response was that other kids are not interested in news. One boy who was quite interested in the situation in Somalia used it as an example, saying he would not talk about it with his peers because:

They would think [the news about people starving] was funny ... 'Cause they skinny and can't eat and they dyin' ... It's not right for them to be makin' trouble and laughing at them cause they can't eat and we could.

Part of their disinclination to talk to other students about news also seemed to stem from thoughts that news is not “fashionable” or a popular topic to discuss. One girl in the advanced-work class made this statement about her peers:

Some people in my class ... never talk about anything else happening, and it seems like they really don't care about the news.

She went on to say that some of the students talked about sports, but that she did not participate in those

conversations because she did not like talking about sports.

Several of the students said that they talked about items from the news with their parents or other family members, but through the subsequent discussion, it became obvious that the most common type of interaction was an adult telling a child that a particular

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news story would be interesting. This was the most distinctive content difference between the two classrooms of students: the only students who said that any of their guardians discussed news with them were in the advanced-work class.

Children's interests

To discuss children's interests in news and how they can be supported, it is first necessary to have an understanding of interest itself. Although most people have an informal conception of interest, a more formal and shared definition is required.

Early this century, the relationship between interest and learning was considered important by several psychologists and educators. In 1913, John Dewey wrote a monograph in which he stated:²

Genuine interest is the accompaniment of the identification, through action, of the self with some object or idea, because of the necessity of that object or idea for the maintenance of a self-initiated activity.

This definition implies that interest is active rather than passive, attached to an object or idea, and very personal. Dewey used these characteristics to explain that the idea of teachers “making things interesting” (so that their students would learn them) was impossible when it meant that artificial attention-getting

devices were added to predetermined (uninteresting) topics. Instead, he suggested that subjects should be chosen in relation to each child's present state, and then the teacher could "make them interesting" by showing the child why the topics might be significant. Dewey suggested that attention and learning would occur naturally once the child had made the connection between the new information and things in which he or she was interested.

In the last two decades there has been a renewed interest in "interest" and its relationship to learning. One reason stems from the awareness that presenting information to children does not guarantee that they

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will make any meaningful connections to it. Those who wish to facilitate learning should understand what children bring to their activities as well as how they feel about various topics and tasks.

Researchers from various disciplines have studied what they considered interest, and many of them have been working together to form a common definition of interest.³ Most interest-related research seems to have conceptualized interest as "a phenomenon that emerges from an individual's interaction with his or her environment."⁴ There are, however, two distinct areas on which the various projects have focused: individual interests and situational interests.

Individual interests. Individual or personal interests are always specific to the persons who have them. They are considered to be stable and to develop and endure over time. People with individual interests are often persistent in their attempts to learn or do things related to their interests, and they associate positive emotions with their interests. For example, if I were to say "I am interested in chess," I might mean that I like to play chess, watch other people play chess, talk to

people about chess, read news about chess matches, and collect chess sets, or some subset of these. You might notice that I smile more and become more animated when we talk about chess, and that when we talk of other things, I use metaphors or language related to chess to explain myself.

Situational interests. Situational interests, on the other hand, are created by the "interestingness" of an object or environment, and are shared among people. For example, if a group of people all heard a sudden loud crash, it would not be surprising if they were all interested in knowing what it was. Unexpectedness, personal relatedness, and potential for danger could all be considered stimuli for their interest.⁵ Situational interests generally are short term, although individual interests may develop from them.⁶ Although the focus of research can be on the people, it is often on the interestingness of the object or environment that the people are experiencing.

Interests in news. Children's interests in news can take either of these forms. Each child I interviewed spoke about a particular interest he or she had in news. These seemed directly related to activities or topics that child enjoyed. When discussing topics such as space, endangered animals, and sports, the children often gave examples other than those in the news; it was clear that their interests were not limited to reading news on the topics.

On the other hand, many children talked about news stories in which they seemed situationally interested. Weather and violence were the most commonly reported topics that seemed to fit this category. Children explained that they were interested in the weather reports so they would know what to wear or if a game could take place; the interest existed because the information would change their environment. Similarly, several children explained that knowing where violent acts commonly occurred would help them know which areas to avoid. Many children mentioned a race-related riot that occurred in a Boston high school two weeks before the interviews; one reason it was important to them was because they were in the process of choosing which middle schools they would request to attend the following year.

Several of the children wanted to make clear that they did not like stories about violence but they did want to learn about them; the term "interested" did not seem quite right. For example, after speaking of the Los Angeles, California, riots in 1992, Carmen said:

Like if you were to have troops coming over here, it wouldn't be so interesting or anything like that, but if it happens far away, and it's not like you, it would be more funner to look at. I'm not saying like, it'd be funny to look at, I'm saying it would be more funner and more interesting to see, but if it were here, it wouldn't be so fun or interesting ... If it happened on my street, it would be more of, not interesting, but more serious to me ...

Although she was struggling with the terms, it was clear that she was saying these stories were not enjoyable, but they did have "interestingness" which drew her to watch them.

Media preference. Many of the children used their interests to explain their preferred method of obtaining news. Half of those interviewed said they got their news from papers, and most of those said they would rather read the paper than watch television news broadcasts. The most common reasons involved the amount of information presented and the order of presentation. Many students indicated that they only read the amount of a news article that was personally interesting, and that they liked the ability to determine exactly how much to read, at what pace, and at what time. Several of the students who were interested in sports said that it was always at the end of a newscast, and that this was frustrating, whereas when reading a newspaper they could go directly to the sports section.

The children who said they watched television news also gave reasons for their preference. Those who had difficulties with the English language or with reading made it clear that these were barriers to reading newspapers, but most of the children in this group spoke about the effectiveness of video footage. Several students stated that seeing videos of events or the people involved gave the viewers the ability to make a more personal connection with the news stories. In one boy's words, when you can "see what's happening, ... it's easier to relate to what they're talking about, know what they're talking about." While talking about the 1992 Los Angeles riots, one of the boys said that he felt seeing the riots on television made it frightening but more real to him.

Children with both preferences stated that they considered the opinions of people involved with news events to be very important. Several of them said that they would like to see news written by other children since the other children would give the real story and tell how it affected them, rather than just giving one

perspective on the events. They were all aware that very few children have the opportunity to participate in the creation of a news broadcast or newspaper.

Constructing news

Children know that reading and writing news by and for their peers can be interesting, especially since it

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allows them to share their perspectives and learn about other people's perspectives. As Carmen said,

If ... kids could put their own articles in [the newspaper], it would be more interesting and everything because it's not only just learning about news, it's learning about people. It's not just about news, it's about people's lives and things like that and what had happened to them.

News-related projects that use a constructionist framework can provide these opportunities. At the heart of constructionism is the theory that learning involves the creation of personal knowledge structures and that this is facilitated during construction of a public entity.⁷ The creation process is active and self-directed.

Dewey's statement that personal interests involve "something whose outcome is important for the individual"⁸ could equally be applied to constructionist activities. While engaged with an object of his or her own creation, a child may seek out new information "for a recognizable personal purpose."⁹ Sharing the object with others allows the child to talk about the object and its design process in a very concrete manner.

Constructionist activities are both situationally interesting and related to individual interests. The ability

Figure 1 The Ralph Bunche Computer School News



to build or create something of one's own design, rather than completing workbook pages or writing assigned reports, creates an interesting situation. When the stages and results of constructionist projects can be shared among peers, this situational interest should be increased. In addition to the general interest in such activities, each child also has the opportunity to make a connection to his or her individual interests, and this may be one of the main reasons for success.

Many constructionist activities involve physical construction, but this is not always necessary. Children creating a newspaper are clearly constructing something that can be shared with others. Writing an article or posting a message also involves constructing and articulating perceptions and opinions. The on-line environment can provide an opportunity to combine the strengths of constructionism with the flexibility needed to allow children to pursue their own individual interests.

On-line projects

On-line news-related projects for children can be categorized by their uses of technology and their apparent relationships to children's interests. The first category is comprised of projects that use networking to provide a new audience for traditional types of activities. The second includes those that use technology to support new types of projects, often involving collaborations that would be difficult without networking. The final category of projects are those that use interest in news to support or create learning in other domains.

Although these projects were not all created using the constructionist framework, they all provide opportunity for children to be active participants in the construction of news.

A new audience. There are many examples of news-related projects for children that existed before the persons involved put them on line. Technology allowed these individuals to expand their work and present it to a broader audience. The new audience may add to a child's situational interest in the projects. The addition of the technology itself can also increase children's situational interests in these projects, since many children find computers to be attractive. The changes to the project do not, however, seem intended to increase or support the children's personal interests in particular topics.

School newspapers are the clearest example of projects that move on line: some schools have printed school newspapers and then decided to create on-line versions as well.

At the Ralph Bunche School, Harlem, New York, students produce a newspaper every other month.¹⁰ The fourth- through sixth-grade students send their articles to the student editors by electronic mail. Participants in the Ralph Bunche Computer School use Page-Maker** to lay out the articles, and a high-school student then creates the corresponding set of World Wide Web pages.¹¹ The on-line version retains much of the form of the paper version; the main Web page of each edition lists headlines by the page number on which they appear (see Figure 1).

It seems likely that the "interestingness" of such projects would be increased if the children who work on them were aware of the audience that their articles can reach through the network. The current state of the Web, however, makes it difficult to obtain a sense of the readers' locations, reactions, or opinions. Some sites maintain a record of how many times pages are requested from their server, and display the numbers on their Web pages. It is unclear, however, if this number is motivating or interesting to the children. Those involved with the Ralph Bunche School project occasionally receive electronic mail from adult readers, and according to one of the adult advisors, these letters "seem to be very much appreciated" although it is not clear that the students understand how wide their readership is.¹¹

If children who have individual interests in areas such as computers, writing, and news content have the

opportunity to participate in such projects, their related personal interests may well be enhanced and strengthened. In addition, students with related interests generally have increased motivation for accomplishing the task at hand.¹²

New collaborations and activities. Beyond supporting projects that already (or could) exist without it, networking offers additional possibilities for collaborations. Children have been involved as authors and editors in several on-line publications for their peers. There are also projects that function as “wire services” for children, where students can submit articles and obtain articles written by other children.

The children who contribute to on-line publications have a much broader audience than they would have had without the networks. The publishers no longer need print a copy for, then transfer it to, each reader. In addition, the audience need not be passive—in several of these projects, mechanisms are available for children in the reading audience to contribute their own articles.

ISN (International Student Newswire) KidNews¹³ is an on-line news service for students and teachers around the world; although grade level is not specified, participants seem to be from elementary and middle schools. Any student may submit a news story, along with his or her name, school, grade, and a headline. Dates are not generally included. Many children’s articles are about events at their schools, but there are also articles about topics of more general interest, such as the United Nations, or stranded whales.

Anyone who uses a story from ISN KidNews is asked to credit the author and school. From the Web pages, it is unclear how many individuals have read or used the stories; the student authors have no way to automatically obtain this information. A few children have included an electronic mail address in their articles, but unless their readers decide to write messages, these children have no way of knowing who their readers might be.

Discussion sections for students and teachers have been added to the ISN KidNews Web pages (see Figure 2). Posts about “news gathering, teaching, and computer-related issues” are invited. The teachers’ forum is frequented more than the one for students; dates are not always included with the messages, however, so participants are not all aware of the time frame of discussions.

Figure 2 ISN KidNews Menu



Projects to which students can contribute articles on varied topics can provide a space for a child to write about an individual interest, and perhaps to find others who share that interest. Articles in these projects can also be situationally interesting, due to the connection they provide to a reader’s peers.

Other interests. Sometimes news is used to support or create other interests. For example, “Newspapers in Education” programs¹⁴ often have a “math in the news” component, in which students may use classified advertisements or stock market reports for their math class projects. Some on-line projects use this method as well.

Researchers at the Institute for the Learning Sciences, Evanston, Illinois, have created a hypermedia program to teach high school students about social studies topics. “Broadcast News”¹⁵ includes real news sources (text and video footage) that students use to produce their own news shows. When the students edit the stories to prepare them for videotaping, they must perform tasks that require an understanding of the social studies issues related to the stories. Some of the questions that students might want to ask are included in the system; the answers are prerecorded by experts in fields such as political science and journalism.

For example, while editing a rough draft of a story about the assassination of Rajiv Gandhi, a student might decide to click on the question “Who was Rajiv Gandhi?” A short video of the political scientist expert answering would then be displayed. If the stu-

dent decides to add information about Gandhi to the first sentence in the story, he or she can click on "Add to selected text" and choose from detailed information about items such as Gandhi's family, Gandhi's title, or the location of the assassination. After the student has finished making decisions, the experts may reappear and challenge some of the choices. Once the student is satisfied with the story, he or she becomes the news "anchor," and reads the story while being videotaped.

Members of the Broadcast News project have observed that the students are excited and motivated by this activity. In particular, the creation of a video in which the student stars seems to create situational interest. The clips provided with Broadcast News may also increase the interestingness of the activity, since some students consider viewing video to be more interesting than reading text.

Those students who are personally interested in the news stories or related areas have the opportunity to view in-depth information about issues of their choice by selecting the related questions.

On-line projects. The news-related projects for children that have been discussed here all provide mechanisms for children to construct some form of news. Although the amount of control that the children have varies from project to project, none of the projects place children in the role of simple consumers who are passive recipients of knowledge about news. Instead, the children are creators and learners.

In addition to creating news stories, children in several of these on-line projects are able to pursue their own interests, and in others they are encouraged to use their interests to support learning about things that may not be initially interesting to them.

NewsMaker project

In the summer of 1993, Mark Kortekaas and I each planned news-related projects for children. Mark was designing software that would allow children to create their own newspapers; he planned to include ways to read, write, and edit news articles, and to print out finished newspapers using his automatic layout system. I was using results from the "What Is News?" interview project to design an on-line conversation environment in which children could read, write, and respond to articles about news, programming projects, and other topics. We realized that our projects should be incorporated into the same piece of software, and News-

Figure 3 One of the groups at the Hennigan School



Maker was the result.¹⁶ All of our work with children using NewsMaker was done at the Hennigan School in Boston.

The NewsMaker project demonstrates one way that news-related projects for children can incorporate the strengths of some recent technological developments. The software not only supports traditional news-related activities such as the creation of newspapers, but at the same time provides the children a space to read and write about news topics of their choosing and to use news to support other interests. In the NewsMaker project, one focus has been to help children pursue their individual interests and share them with other students.

In the spring of 1994, I introduced NewsMaker to three classrooms of fifth-grade students (one class of native Spanish speakers and two advanced-work classes) and two of fourth-graders (one bilingual class and one advanced-work class). These students were given the ability to use NewsMaker, but were not assigned to use it for any particular purpose. During this preliminary study, three of the teachers severely limited the amount of time in which their students had access to the software; in their classrooms, students were given only one 50-minute period dedicated to NewsMaker. If they later wanted to make use of

NewsMaker, they had to combine it with their other computer-related projects. As part of another study, a fourth class of fifth-grade students used the system for creating their own news articles and newspapers.¹⁶

The students' uses for the system varied, as did the amount of time they spent with it. In this section, I describe some of the news-related content that children decided to write.

Choosing news. Children in this project were allowed to choose the topics about which they would read and write (see Figure 3). The initial topics were almost all about news from external sources, in newspaper categories such as national, international, lifestyle, and sports. Students requested additional topics such as video games, book reviews, school news, the Logo programming language, local weather forecasts, news about Japan, puzzles, and rap music.

Although the children read the outside news, most of the time they preferred to read messages written by their peers. During their only group session on line, several fourth-grade students read news messages and also wrote some of their own. For example, in the midst of dozens of articles by journalists in the national news group, Alicia wrote this:

The White water issue is about how president Clinton might have done something wrong. It might be something serious and it might not be but they are trying to find out that. I personally think that this is not such a big deal but a lot of people think that it is.

This excerpt may seem more like an editorial than a news article, but it fits children's perspectives on news stories: it contains some factual information and then an opinion about that information.

Whitewater was not a topic of discussion in these students' classroom, nor was it a popular topic on the playground. The on-line environment provided Alicia with an opportunity to describe what she knew about the issue and give her opinion.

Although some of Alicia's classmates replied to her message, none of them wrote about Whitewater. In other news groups, such as sports, some children did reply with related information.

The form of sports articles. Reading and writing about sports was fairly popular. Five boys and five

girls contributed messages for a total of 20 posts about sports. Most of the girls' nine messages were reports of the results of skiing and figure skating competitions, along with their opinions. For example, Susan replied¹⁷ to an article about a women's slalom event with this message:

Title: RE: ALPINE SKIING—SCHNEIDER WINS
SEASON-ENDING SLALOM

>
> VAIL, Colorado, March 20
> (Reuter) - Vreni Schneider of
> Switzerland won the women's slalom
> on Sunday at the World Cup Finals,
> according to provisional results.

>
Alberto Tomba won a silver medal in the slalom event. He lucked out. If the other skiers didn't mess up he would of lost.

Yolanda also replied to the article about the women's slalom, but her message was about another women's event:

Nancy Kerrigan won the sliver medal in the Figure Skating. Nancy Kerrigan raps on ice. She was hit by Tonya Harding.

These girls clearly were aware of the content of the message they replied to, but they did not choose to refer to it, or to each others' messages.

Another girl in this fourth-grade class, Katrine, had an opinion that disagreed with the Olympic judges' ruling. Following the same pattern as many other children, she first provided facts and then gave her opinion about the "story" that she was reporting.

Title: FIGURE SKATING
WOMEN'S FIGURE SKATING MEDALISTS

MEDAL WON	COUNTRY	NAME
Gold	Ukraine	Oksana Baiul
Silver	United States	Nancy Kerrigan
Bronze	China	Chen Lu

HOW THEY DID
Oksana did wonderful.
Nancy was good.
Chen Lu was great.

None of the boys wrote about individual competitions; all of their messages were about team sports

such as basketball and hockey. The form of their messages was similar to those written by the girls. The boys' posts were divided between reporting team sports results and making predictions for teams. For example, Jorge wrote:

Title: Final Four prediction's
Duke vs. Florida
Arkansas vs. Arizona
Last two teams will probably be Duke vs. Arkansas
Arkansas will win the championship

Other boys soon put up their own predictions for various sports, although none of them referred on line to any of the others.

In this environment, not only did these children feel comfortable posting news articles, but they felt able to publicly share their opinions, even when they disagreed with authorities. It is unclear if they felt they

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were writing opinion pieces or news articles; several of the children said that news articles include the opinions of the person writing them, so they might not have made a distinction between reporting of events and sharing their opinions.

Writing for newspapers. In another study, children from an integrated fifth-grade classroom worked with Mark Kortekaas during two sessions each week for six weeks, creating their own individual newspapers. They were encouraged to write articles for their papers, in addition to using content from external sources, but they were not assigned particular topics or events. No one in the group functioned as an editor, and no adult monitored their spelling or punctuation. The goal was for the children to write and create newspapers of their own design. Just as the content in a daily newspaper is not all news, the children wrote some articles that would not be considered news.

Out of the 39 messages these children wrote for their newspapers, 12 were about school-related events such as a play, a talent show, or a class trip. Eight were about local violence and drugs. Other topics the students wrote about included science fair projects, summer plans, family events, and pets.

Some of the children wrote several articles in varying styles and on different topics. For example, after posting two limericks about animals, Konrad wrote this article:¹⁸

Title: THE WHEATHER

THE WHEATHER IS WARM AND COLD. IT'S SUNNY
AND COLD AND BREEZY OUTSIDE. THAT'S THE KIND
OF WHEATHER I WOULD SPY, BECAUSE IT'S NO LIE.
SUNNY, HOT, COLD, AND BREEZY.

Although Konrad clearly enjoyed playing with words, he did not limit his newspaper articles to this tone. His final article was a review of the movie *My Girl*. All of these articles would have been appropriate in a daily newspaper, even though they might not be considered news.

The influence of newspapers and television could be observed in many of the children's articles. For example, Laura wrote this message:

Title: ANNOUNCING..... NEW TIME TRAVEL
ADVENTURE!!!!!!!!!!

HOW WOULD YOU LIKE TO TRAVEL TO ANCIENT
EGYPT, AFRICA, THE LAND OF THE DINOSAURS OR TO
THE YEAR 2222 WHEN THE LOOTER POLUTERS
ROAMED THE STREETS OF BOSTON? IF YOUR ANSWER
IS YES, THEN WATCH FOR THE UPCOMING
PRODUCTION OF AN ORIGINAL PLAY WRITTEN AND
PRODUCED BY ROOM 304 OF THE HENNIGAN SCHOOL
AND THE FIFTH GRADE CLASS AT THE WINSOR
SCHOOL UNDER THE DIRECTION OF STUDENTS FROM
WHELOCK COLLEGE. THE PLAY WILL BE PRESENTED
AT THE HENNIGAN SCHOOL, THE MURPHY SCHOOL,
HALEY SCHOOL AND WHELOCK COLLEGE DURING
THE WEEK OF APRIL 11 TH. WATCH FOR DATES AND
TIMES.

Although the style of this message has more in common with that of advertisements than news articles, Laura did include many of the facts that would belong in a news article about a play.

Like Konrad, Laura did not limit herself to writing about any one topic. She wrote one message about the school talent show, one about plans for the class trip, and two about the play, but she also wrote a message about her neighborhood that began:

THE DATE WAS MARCH 25, 1994 IT WAS AROUND 7:00 PM AND I WAS WALKING DOWN THE STREET AND I SAW A GANG SELLING THERE LITTLE DRUGS TO LITTLE KIDS AND HAVING THERE NASTY GUNS OUT

The messages about violent events were the most compelling. It was not surprising that there were some messages of this type in the group, as many of the students stated that it was important to know about “bad things” and also that the media focuses on negative events. Princess put her article about violence at the beginning of her newspaper, just as many daily papers do.

Shalauna wrote a message that emphasizes the need for children to have a place to talk about current events. She titled it “Gang Members and Violence” and began by saying “These days you really can’t go no place and say nothing To no body cause if you say anything smart you will end up get stabbed.” She went on to tell about an incident that had happened the day before, when a boy tried to get her to take drugs. She said she went to her mother, but her mother just said “don’t ask me.”

Many of these children lived in dangerous areas of the city and viewed violence in the news as natural, since it was a large part of their lives. All eight of the messages about drugs and violence for the newspapers were written by girls, however; none of the boys in this class wrote about violence in the news group made for their newspaper. This was not because the boys were not interested in the topic, since John, one of the African-American boys in this class, wrote this thoughtful message in the lifestyle group:

Title: WHY DO PEOPLE OF DIFFERENT RACES KILL EACH OTHER?

I THINK PEOPLE OF DIFFERENT RACES KILL EACH OTHER FOR A REASON OR MANY REASONS WHY BECAUSE IT’S HOW SOME PEOPLE ARE AND HOW THEY WERE RASED UP IN THERE TOWN OR EVEN THER COUNTRY. MANY PEOPLE SAY WHY BUT IT DOSEN’T MATTER WHETHER YOUR, BLACK, WHITE, YELLOW, BROWN YOU WERE BROUGHT INTO THIS WORLD AND YOU SHOULD BE HAPPY THAT YOUR

EVEN LIVING. I WONDER WHAT OUR FUTURE HOLDS OR MAYBE WE DON’T HAVE A FUTURE JUST BECAUSE WE ARE KILLING AND HURTING EACH OTHER JUST BECAUSE WERE DIFFERENT.

WHO, WHAT, WHEN, WHERE, WHY, HOW. WE HAVE TO ANSWER THESE QUSTIONS FAST BEFORE THERE ALL DEAD.

John chose not to explain why he posted his message to the lifestyle group rather than to his class’s news area. Perhaps he did not consider it to be a news article, but something that fit better in a human interest section of a newspaper. Another possibility is that he wanted kids from other classes to read it—or that he wanted to put it where his classmates were not required to be. No one responded on line to this message, or to any of those in the class’s news group.

Lessons learned. On-line systems such as NewsMaker allow their users to focus on what is interesting to them. Many of the children in this project chose to read and write about news. All of the students, even those who were assigned to write articles and create newspapers, wrote about topics in which they seemed personally interested.

The content and form of many of the children’s news articles corresponded with their perspectives on news. In particular, the inclusion of their opinions of the facts they wrote about supports their claims that they believe the news is biased.

Several children first wrote playful messages such as limericks, but later focused on issues of general concern, such as violence in their neighborhoods. Further progression to discussion of these and other topics may take yet more time.

Discussions of programming problems and related issues did occur in the NewsMaker group for children involved with a game design project;¹⁹ those children had access to NewsMaker four times a week over a period of four months.²⁰ The game designers’ writing also showed increased awareness of their audience;²¹ children who had less frequent access to the environment did not show significant changes over time.

Future possibilities

Children are aware of and have interests in news. Designers of news-related projects for children should be aware of which type of interest they wish to sup-

port or create. Although it may seem difficult to both support individual interests and create situational interests, these goals may not be in conflict.

Observations from the NewsMaker project have provided additional information on children's perspectives on and interests in news. Further work is

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to demonstrate
the relationship between
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necessary to address other issues that the children introduced during the "What Is News?" project. Topics that seemed important to them included:²²

- Topics that were interesting to them
- Types of news media (which ones they used most often, comparisons between types, preferences)
- Importance of being informed (for adults and children)
- Trust in what was presented
- Level of interest depending on location (both general news and school news)
- News stories, papers, and programs aimed at youth (whether or not they had seen any, how they were different from those for adults, how they could be different)
- Violence in the news

New technological developments can continue to be used to achieve these goals and others like them. For example, news stories in NewsMaker were grouped into very broad categories, such as national news and entertainment news. Better categorization techniques would allow the incoming news to be divided into smaller groups by narrower topics. This would allow children with specific individual interests to obtain and discuss related news without searching through dozens of articles to locate those of interest to them.

Situational interest in news could also be increased with technological aid. In particular, there are ways to

demonstrate how news stories are personally related to an individual or community. For example, the following two projects created for adult communities serve as good examples of technological advancements that could aid in the creation of news environments for children.

PLUM^{23,24} is a computer system that augments news about natural disasters. It analyzes incoming news wire stories and automatically augments the stories with information relating them to the reader's home community. For example, a Bostonian reading about a flood in Vietnam could follow links to information comparing Boston and Vietnam, the history of floods in both areas, and the scope of the flood if it were in Boston. Although PLUM currently is limited to natural disasters, this type of analysis and augmentation could be applied to other news stories. This type of information can provide children with a sense of connection to the stories they read, as well as a realistic view of the events.

The FishWrap project^{24,25} provides an on-line news reading environment that allows an MIT student to create a personal interest profile that the system uses to select articles for him or her. In addition to reading news related to their individual interests, students can read "Page One." Articles on this page are those with most recommendations from FishWrap readers, and they are rearranged as new recommendations arrive. Although not every article will be related to a reader's individual interests, the fact that an article is featured on the main page—and that peers have suggested it—can be very interesting. This can also be a good way to learn of potential new interests, since members of the reader's peer group have found the topics interesting.

Augmentation of stories and indications of their importance to a community can aid both children's understanding and their appreciation of news stories. This in turn should make the stories more situationally interesting. Being aware that an audience exists may also increase children's situational interest in the publication of news.

The current status of the Web and other network tools makes it difficult to gain a sense of who the audiences are for various on-line projects. Increased feedback has the potential to increase children's awareness of their audience as well as provide them with a reason to be interested in producing quality writing.

Conclusion

On-line constructionist news-related projects can support children's individual interests by providing the users with in-depth information on many topics, connections to other information sources, and ways to construct their own stories. Communication mechanisms allow communities to form around shared interests through discussion of news topics or related issues. Furthermore, situational interest in creation of news can be increased by supporting a visible audience for the children's writing. The interestingness of news can be increased by presenting information that explains why a story could be related to the reader, and by mechanisms that indicate which stories were most popular among other students.

If children are to learn with and about news, they need motivation as well as access to the news. Technology can provide access and an audience, but only the children can decide to be interested in news-related projects. As John Dewey said, adults cannot "make things interesting" to children beyond providing them with reasons why those topics are significant to them. Projects such as the ones discussed in this paper can take advantage of technological advancements to expose children to the interestingness of news and to support them in their individual interests as well as in discussions with their peers.

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