*Dorit Tubin*
*Sarit Klein*

*Planning and Changing*
*Vol. 38, No. 3&4, 2007, pp. 191–207*

# DESIGNING A SCHOOL WEBSITE: CONTENTS, STRUCTURE, AND RESPONSIVENESS

## Introduction

Over the past few years, as part of the Information and Communication Technology (ICT) reform on the one hand, and the increased demands for school accountability on the other, more and more schools have launched a school website aimed at enhancing educational activities, supporting student-teacher communication, contributing to school marketing efforts, and fostering accountability to and collaboration with the school's constituency (Hesketh & Selwyn, 1999; Maddux & Johnson, 2006; Miodusar, Nachmias, Tubin, & Forkosh-Baruch, 2003). A large body of research on ICT-based pedagogical and educational websites (i.e., websites that focus on subject matters and learning activities) reveals the contributions of such websites to the schooling process (Kozma, 2003; Miodusar, Nachmias, Lahav, & Oren, 2000; Pelgrum & Anderson, 2001; Plomp, Anderson, Law, & Quale, 2003). However, the phenomenon of school websites, which serve the school organization in its entirety, remains relatively unexplored. Buzzwords like "E-learning," "E-teaching," and "E-schooling" have become very popular but provide no help in generating a deeper understanding of school website contents, structure, and functions.

The vagueness of school website goals is also evidenced in the metaphors used to refer to them in the educational literature: a window for the school's culture (Giladi, 2004); a virtual display window (Klein, 2005); like Hollywood movie sets with large graphics but not much solid content (McKenzie, 1997); or a tool through which schools seek to reaffirm or reconstruct their institutional identities (Hesketh & Selwyn, 1999). All these metaphors indicate the power of the potential messages school websites can convey to casual and intentional visitors, but what is actually happening on school websites?

The present study aims to start answering this question by exploring the contents and structure of school websites and their responsiveness to their school's environment. In the following sections we briefly review the literature regarding school websites, describe the institutional theory that provides the conceptual framework for the study, present the study methods and findings, and finally discuss the results and suggest practical implications for accountability-oriented school website development.

## Literature Review

### *School Websites*

Schools' access to the Internet has increased dramatically over recent years. In the USA for example, the proportion of instructional rooms with access to the Internet increased from 51% in 1998 to 93% in 2003 (NCES, 2005). It follows that there may be a corresponding proliferation of school websites as well. A school website, like any other Internet site, is constructed of multiple interlocking pages, each presenting different content. The site's design and structure depend on several aspects, such as the content layout (linear, branching, or web-like structure), modes of information presentation (e.g., text, still image, dynamic image, interactive image, sound, and video), navigation tools (e.g., thematic indexes, image maps, time-lines, iconic directional-pointers, search facilities) (Shemla & Nachmias, 2007), and human resources (e.g., both technical knowledge and understanding of the school's culture and educational priorities) (Tubin & Chen, 2002).

Looking for architectural criteria for website evaluation, Hong and Kim (2004) suggested three main principles—structural robustness, functional utility, and aesthetic appeal—that impact user satisfaction and loyalty. Other researchers found that website quality depends on the richness of the contents (Leping & Johnson, 2005), the website's usefulness and ease of use (Selim, 2003), and the user's goals and activity levels (Hong & Kim, 2004). The quality of a school website also depends on the degree to which it fulfills the school's needs. McKenzie (1997), for example, proposed four goals for a good school website: introduction to the school, interface to outside resources, publishing of good works, and serving as a resource database. Others believe that a school site should mainly serve as an extension of the school, offering a learning environment that enhances individualization of teaching and learning, and improving teacher-student communication (Cumming, Bonk, & Jacobs, 2002). Another important goal for the website is to prop up the school's high positioning and image, both for accountability and marketing purposes, especially in a decentralized and competitive environment where demands for accountability and parental choice become an important factor in the school's survival (Oplatka & Hemsley-Brown, 2004; Bush, 1999; Marks & Nance, 2007). Theoretical justification for the diverse goals and users of school websites is provided by institutional theory.

### *Institutional Theory*

Institutional theory suggests that institutional arrangements play a key role in shaping organizational behavior (Rowan & Miskel, 1999). According to this theory many of the organization's activities, which purport-

edly promote efficiency, are actually conducted to achieve environmental legitimacy. By adopting the institutional regulations, norms, and ideology from the surrounding environment, the organization increases environmental support and resource flow, and enhances its survival prospects. Sometimes this occurs at the price of undermining the organization's technical core—its processes of transforming inputs into outputs and efficiently accomplishing the goals that the organization was established to achieve in the first place (Meyer & Rowan, 1992; Scott, 2003).

The technical core of educational organizations is composed of the instructional activities of teaching and learning. It is the set of norms—what Tyack & Cuban (1995) call the "grammar of schooling" (p. 85)—that expresses how a school should work. As described by Meyer and Rowan (1992), it is the "certified teacher teaching a standardized curricular topic to registered student in an accredited school" (p. 84). Abiding by these norms creates rational myths, that is, beliefs widely held by people in society indicating the rational way of doing things (Meyer & Rowan, 1977). Assimilation of such rational myths into school procedures becomes worthwhile and even necessary for the school's survival, and in turn leads to isomorphism—a significant structural homogeneity among schools (DiMaggio & Powell, 1983).

Once a school has assimilated this "grammar," it is not easy to change it. Thus, when external demands for change, improvement, innovation, and accountability challenge schools, usually without providing adequate resources and values for doing so (Fullan, 2001), the schools have to buffer their technical core from these external forces and instead present symbolic activities. By so doing, the school maintains the appearance that things are working as expected, even if this is true only to a small extent, and thereby continues to mobilize environmental legitimacy and support (Meyer & Rowan, 1977).

School websites are a good example of these institutional elements of isomorphism and buffering. While schools imitate one another, especially prestigious schools with impressive websites, and launch websites of their own, they conceal or at least present only a very small part of their actual pedagogical work to the visitors' eyes, and thus buffer their technical activity from public control (Hesketh & Selwyn, 1999). As a result, the idea of the website as a window to the learning environment is barren. At the same time, the school website could be an effective strategic tool to face some of the environment's expectations, like standardization, accountability, management diversity, and parental choice (Oplatka, 2004; Marks & Nance, 2007). By using the school website as part of the school's strategic plan (Davis & Ellison, 1997), the school can present its achievements, boost its positioning, and enhance its reputation, even in countries with a centralized educational system like Israel.

### *The Israeli Educational System*

The educational system in Israel is highly centralized, controlled by the Ministry of Education, and managed cooperatively with the municipalities in accordance with each of the different sectors (secular, religious, and orthodox). Based on ICT national policy, schools are required to introduce computers and the teaching of ICT skills (Nachmias, Miodusar, Forkosh-Baruch, & Tubin, 2003). Connection to the Internet, however, depends on the municipalities and varies along economic and religious factors. In 2005, of the 3,800 Israeli schools, 1,500 had a regular Internet connection, 1800 had an ADSL connection (which enables easiest access), and 500 were not connected for religious reasons. We could not find any formal statistics on school websites.

As for school website design, two options are available for Israeli schools: development of an independent website according to the school's needs, or use of an 'off-the-shelf' platform. The cost of an independent platform is very high for the average school budget, but it comes with the design and support of a professional IT firm, while the off-the-shelf platform can be obtained free of charge or at a very low cost, and then is further developed and designed by the school's staff. Students are only rarely involved in school website development, and then only as technical assistants under their teachers' supervision (Tubin, Miodusar, Nachmias, & Forkosh-Baruch, 2003).

The centralized Israeli educational system is divided into two main sub-systems. The first subsystem is by *sector*: the secular sector with 57% of schools, the religious sector with 16% of schools, and the orthodox sector with 27% of schools none of which is connected to the Internet (Ministry of Education, 2006). The second sub-system is by *level*: elementary (K–6) and secondary (grades 7–12). School environments thus vary according to sector and level. Using the lens of institutional theory, we assume isomorphism and, thus, similar contents in the school websites due to the Ministry of Education ICT integration policy (Nachmias et al., 2003). But we also assume that the school websites will differ in their symbolic and technical structure according to their specific environment of sector and level. These assumptions led to the following exploratory research questions: What are the contents of the websites? What is the websites' underlying structure in technical and symbolic terms? And what are the relationships between this structure and the school environment?

## Methodology

### *Sampling*

A random sample of 60 school websites was analyzed by level (elementary, secondary) and sector (secular, religious) in February/March

2005. Since no formal data existed identifying how many Israeli schools have websites, we obtained our sample in the following way. First, based on the Bureau of Statistics 2004 data, we chose only the five regions and municipalities with at least 30% of households connected to the Internet, assuming that less than this figure would cause a bias. Second, we compiled a list of the 542 schools in these regions. Third, we searched for the schools' websites on the Internet sites of the Ministry of Education, districts, municipalities, and educational infrastructure companies, using different search engines (mainly Google), and found 211 websites. Fourth, of the 211 located websites, 15 were randomly sampled at each stratum of sector and level. The data are presented in Table 1.

**Table 1**

*Population of Schools with Websites Sampled by Sector and Level*

| | Secular | Religious | Total |
|---|---|---|---|
| Elementary | | | |
| Schools | 250 | 69 | 319 |
| Websites (% of schools) | 103 (41%) | 32 (46%) | 135 (42%) |
| Sample | 15 | 15 | 30 |
| Secondary | | | |
| Schools | 169 | 54 | 223 |
| Websites (% of schools) | 52 (31%) | 24 (44%) | 76 (34%) |
| Sample | 15 | 15 | 30 |
| Total | | | |
| Schools | 419 | 123 | 542 |
| Websites (% of schools) | 155 (37%) | 56 (46%) | 211 (39%) |
| Sample | 30 | 30 | 60 |

It is important to note that this is not a proportional sample because of the different number of websites found in each stratum. Since the focus of this study is on school website content and structure, we were interested in the websites themselves rather than their population, and thus preferred an equal number of websites rather than equal proportion.

*Analysis*

The three research questions, pertaining to website contents, website structure, and website responsiveness to environment, were analyzed in different ways.

*Website contents* were analyzed in two steps. First, a pilot analysis was conducted focusing on the pages' titles and contents. Two independent researchers explored four randomly chosen websites, each of different

environments (secular elementary and secondary, religious elementary and secondary), looking for different aspects of school life pertaining to students, teachers, parents, the principal, learning material, teaching methods, etc. Their search resulted in 19 categories of pages similar in content. For example, the parents' category includes pages such as parents' payments, school code, parents' forum, PTA (Parent Teacher Association) messages, etc. Of the 19 categories, 16 (84%) were agreed upon by the two researchers, and the other three were discussed and elucidated until full agreement was reached on the categories and pages that best reflect the website contents. Second, the remaining 56 websites were analyzed and evaluated for the categories' presence and intensity on each website according to the following scale: 1 = no such category was found, or it was found on less than 33% of the website's pages; 2 = the category was found on 33%–66% of the website's pages; and 3 = more than 66% of the website's pages contain that category.

*Website structure* was analyzed by classifying the 19 categories for symbolic and technical factors. Based on the literature (McKenzie, 1997; Meyer & Rowan, 1992), *technical* categories were defined as those that contain pages presenting instructional material such as curriculum, subject matter, teaching methods, and learning activities. Categories whose pages offered social information such as school tours, holidays, gatherings and proms, messages for parents, declarations regarding school goals, and alumni and commemorative pages were classified as *symbolic*. Categories that were deemed neither technical nor symbolic were grouped as *indifferent*. A statistical test of factor analysis or inter-correlation between the items was also conducted, as will be explained in the results section.

Finally, *website responsiveness* to its school environment was analyzed by MANOVA (Multivariate Analysis of Variance) and contrast analysis, which was conducted to find the relationship between the websites' symbolic and technical factors and the school environment (sector + level). Additionally, MANOVA was also conducted on the relationship between the websites' platforms (independent or off-the-shelf) and their symbolic and technical factors to explore the platforms' effect on the websites' structure.

## Findings

From this examination of school website contents, structure, and responsiveness to the school environment, the following was found.

### *Website Contents*

In general a wide variety of contents were found according to richness of information (number of pages including or devoted to a category). Checking the 19 categories' intensity (on a scale of 1–3), it was found that

declarations, social activities, class sites, and administration were the most intensified, while extra-curricular activities, surveys, class forums, and e-mail contact with the principal and teachers were the least frequently used. The data are presented in Table 2.

**Table 2**

*Website Categories and Their Average Intensity*

| | School website categories | Average intensity |
|---|---|---|
| 1. | Declarations: School goals and vision, principal's statement | 2.40 |
| 2. | Social events: School bulletin, sports championships and competitions, school tours, happenings, events, ceremonies | 2.03 |
| 3. | Administration: Number of students, teachers, classes, teachers' names, school budget by subject matter, and main functionaries | 1.97 |
| 4. | Class sites: Messages, congratulations, assignments, exam timetable, recommended links, birthdays, student products | 1.97 |
| 5. | Unique projects: Innovative pedagogical program descriptions, participants, and details | 1.69 |
| 6. | Parents: Meetings schedule, protocols, PTA members, budget report, school codes, etc. | 1.68 |
| 7. | Tools: Search engines, links, general guidelines for assignments, online encyclopedia | 1.67 |
| 8. | Major sites: Tasks, projects, assignments, exam preparation, teacher names and emails, recommended links, students' products, forum, resource center | 1.63 |
| 9. | Teachers: Pedagogical resource center, forums, tools for curriculum development | 1.55 |
| 10. | Curriculum: Courses per class, level, and subject matter | 1.48 |
| 11. | School forum: Congratulations, book recommendations, subject matter, school events, sports, drug prevention, music, television | 1.45 |
| 12. | Commemoration for school alumni: names, pictures, stories | 1.32 |
| 13. | Interdisciplinary and multidisciplinary curriculum: Description and details | 1.32 |
| 14. | Site development: Access meter, 'Contact us' link, bulletin board (important dates, prizes, awards, congratulations, events) | 1.30 |
| 15. | Extracurricular activities: Description and details | 1.27 |
| 16. | Survey: Regarding student habits, opinions, and attitudes | 1.25 |
| 17. | Class forum: Congratulations, book recommendations, subject matter, school events, sports, drug prevention, music, television | 1.25 |
| 18. | Principal's email: Statements, email address | 1.23 |
| 19. | Teachers' email: Existence and accessibility | 1.10 |
| | Total average | 1.56 |

It was also found that no website presented all categories, that on average each category was missing in 57% (34) of the websites, and that the average magnitude of the websites' categories was 1.56 (on scale of 1–3). In addition to the light contents, as measured by the number of categories and pages, the general impression (although not scientifically measured) was one of insufficiency: sloppy design, unfriendly interface, and few relevant images.

*Website Structure*

Using factor analysis, we analyzed the categories for symbolic and technical factors. We found that the symbolic factor contains five categories and the technical factor contains nine (with repetition of two categories in both factors), both with Cronbach's Alpha of $\alpha$ =.75 (see Table 3). By reliability analysis, the repetitive categories—unique projects and administration—were found to contribute equally to both factors. Unique projects, for example, serve the technical core by enabling learning activities and the symbolic factor by positioning the school as progressive and creative. Information on students, teachers, and resources in the administration category contributes to the symbolic aspect by presenting the school's classification, and contributes to the technical aspect by exhibiting subject matter hierarchy. Seven entire categories were classified as indifferent, adding nothing to the latent symbolic-technical variables (see Table 3).

**Table 3**

*Classification of Symbolic, Technical, and Indifferent Categories*

| Symbolic categories | Technical categories | Indifferent categories |
|---|---|---|
| 1. Unique projects: Innovative pedagogical program descriptions, participants, and details | | 1. Extracurricular activities: Description and details |
| 2. Administration: Number of students, teachers, classes, teachers' names, school budget by subject matter, and main functionaries | | 2. Survey: Regarding student habits, opinions, and attitudes |
| 3. Parents: Meetings schedule, protocols, PTA members, budget report, school codes, etc. | 3. Site development: Access meter, 'Contact us' link, bulletin board (important dates, prizes, awards, congratulations, events) | 3. Class site: Messages, congratulations, assignments, exam timetable, recommended links, birthdays, student products |
| 4. Declarations: School goals and vision, principal's statement | 4. Curriculum: Courses per class, level, and subject matter | 4. Principal's email: Statements, email address |

*(continued)*

**Table 3** *(continued)*

| Symbolic categories | Technical categories | Indifferent categories |
|---|---|---|
| 5. Social events: School bulletin, sports championships and competitions, school tours, happenings, events, ceremonies | 5. Major sites: Tasks, projects, assignments, exam preparation, teacher names and emails, recommended links, students' products, forum, resource center | 5. School forum: Congratulations, book recommendations, subject matter, school events, sports, drug prevention, music, television |
| | 6. Tools: Search engines, links, general guidelines for assignments, online encyclopedia | 6. Commemoration for school alumni: Names, pictures, stories |
| | 7. Interdisciplinary and multidisciplinary curriculum: Description and details | 7. Teachers: Pedagogical resource center, forums, tools for curriculum development |
| | 8. Teachers' email: Existence and accessibility | |
| | 9. Class forum: Congratulations, book recommendations, subject matter, school events, sports, drug prevention, music, television | |

We also found that the three groups of categories are presented differently on the websites: While each category of the symbolic factor was missing in an average of 18 (30%) sites, the categories of the technical and indifferent group were missing in an average of 37 (62%) and 40 (67%) of the sites respectively. A similar picture was observed when an average of 1.95 (on a 1–3 intensity scale) was measured in the symbolic categories, 1.49 in the technical categories, and 1.35 in the indifferent categories.

*Website Responsiveness*

The third research question concerned the relationships between the school website and the school environment (sector + level). Using MANOVA we found a significant sector effect ($F$ (55) = 9.96, $p < .001$) on the symbolic-technical factors, meaning that in the secular schools there were more technical and symbolic categories than in the religious schools. We also found a significant level effect ($F$ (55) = 3.24, $p < .001$) on the symbolic-technical factors, meaning that there were more technical and symbolic categories in the secondary schools than in the elementary schools. To interpret the interaction effect of sector and level, a variance analysis was conducted on both independent variables, and a significant interaction ($p < .020$) was found, as presented in Table 4.

**Table 4**

*Variance Analysis of Level/Sector Effects on Symbolic/Technical Factors*

| Independent variables | Dependent variables | Mean square | *F* | Significance |
|---|---|---|---|---|
| Sector | Technical | 173.40 | 15.73** | .000 |
| | Symbolic | 123.27 | 19.17** | .000 |
| Level | Technical | 68.27 | 6.19* | .016 |
| | Symbolic | 13.07 | 2.03 | .160 |
| Sector + Level | Technical | 72.60 | 6.58* | .013 |
| | Symbolic | 52.27 | 8.13* | .006 |

*$p < .05$. **$p < .001$

Except for the symbolic factor under the level effect, all other interactions were found to be significant, which means that each of the four environments—secular-elementary, secular-secondary, religious-elementary, and religious-secondary—is actually a distinct environment with respect to the schools' website contents and structure.

We also conducted contrast analysis to determine whether the technical or the symbolic factor, or neither, is predominant in each of the environments. We found that the technical factor was significantly more evident in the secular-secondary school websites than in the religious-secondary school websites ($F$ (1.56) = 21.33, $p < .001$), while no such difference was found in the elementary school websites. A significant difference ($F$ (1.56) = 12.77, $p < .001$) was also found between the elementary and secondary websites in the secular sector, while no such effect was found in the religious sector.

A very similar picture was found regarding the symbolic factor, which was found significant in the secular-secondary school websites and not in the religious-secondary school websites ($F$ (1.56) = 21.12, $p < .001$), while no such difference was found in the elementary school websites. A significant difference ($F$ (1.56) = 9.14, $p < .001$) was also found between the elementary and secondary websites in the secular sector, while no such effect was found in the religious sector. This means that each of the technical and symbolic factors is significantly more evident in the secular-secondary school websites than in the religious or the elementary school websites.

Finally, we found that the website platform has its own effect on the websites' structure. Thirty-one independent platforms were found. Among them, 10 were designed by a hired IT firm (all for well-established high schools) and the remaining 21 were part of the municipality's open website. The other 29 websites were based on off-the-shelf platforms. A significant effect of the platform was found on the website structure (*Wilks* $\lambda$ [57] = .75, $p < .00$), meaning that the independent websites present more developed websites (in number of categories and pages) in both the tech-

nical and symbolic factors.

## Discussion

In this study we explored school website contents, structure, and responsiveness and came up with several important conclusions. First, we found that the symbolic and technical factors are both more evident in secular school websites than they are in religious school websites. This can be explained by the more demanding and competitive environment of the secular schools than the more unified and closed environment of the religious schools (Benavot & Resh, 2001). The clear message from the environment can also explain the fact that only the technical factor was found to be significantly different in elementary and secondary school websites. While the emphasis on the symbolic factor is similar across levels, probably due to the same Israeli culture that both have to adopt, the technical factor is more evident in the secondary schools, which prepare their students for the matriculation exams, and thus use the websites for more technical subjects than the elementary schools do.

Second, we found that the websites comprise a variety of contents, different combinations of categories, and diverse degrees of development. Several explanations can elucidate this finding. First, it could be that the websites are in their formative stage (in most cases we were unable to find the websites' date of establishment), and their underdeveloped status reflects this. If so, further longitudinal study might find improvement over time. Second, the diversity might be explained by the unequal resources that schools have to invest in website development. This explanation is supported by finding the more developed websites on the more costly independent platform. However, there are some well-developed websites in the small elementary schools. Further study is called for to find which factors affect the development of a school website. Third, different emphasis on the technical or symbolic contents of the websites might result from school policy, with different schools variously using the website to claim an advantage in one, two, or all areas: as a marketing tool, communication channel, and/or for the learning environment. This is also a subject for further study to find under what circumstances the school website emphasizes any aspect of all the above.

Finally, we found that most of the schools were not fully exploiting the website as a tool for boosting accountability or enhancing marketing options. The empty pages, outdated sections, and sporadic use of images all support this impression. Although these indicators were more frequent in websites using the off-the-shelf platform, some of these websites were found to be very well-developed, which indicates greater emphasis on school culture and priorities than the pure technology issue. In an educational environment that is shifting from supply-led systems—operating in accordance with procedures decided by educational authorities, schools,

and teachers—toward systems that are far more sensitive to parent and community demands (OECD, 2006), it is a waste of a great opportunity not to integrate the website into the school's strategic plan. In the following section we suggest some implications in this direction.

## Implications for Strategic School Website Development

Over recent decades many countries (e.g., England, Australia, New Zealand, Denmark, Israel) have engaged in educational reform aimed at providing the school with greater autonomy while demanding greater accountability (Datnow, Hubbard, & Mehan, 2002). In such an environment, the school website can serve as an important tool for strategic planning and marketing (Bell, 1999; Davis & Ellison, 1997; Foskett, 1999). Interestingly, in the educational strategic and marketing literature, which mentions tools like public relations, open evenings, parent assemblies, press coverage, brochures, and prospectus packs (Oplatka & Hemsley-Brown, 2004), the school website is missing. School website technology, however, has several characteristics that make it a perfect platform for supporting school accountability. Among them are different modes of presentation (images, movies, text, music, animation); simple ways of replacing and updating contents; easy connection and links to global communications (World Wide Web); huge storage space for an enormous amount of material, publications, and databases; and access possibilities anywhere and anytime. School websites provide schools "with a carte blanche opportunity to reconstruct their local identities in the eyes of observers," as suggested by Hesketh and Selwyn (1999, p. 508). Thus, to use the school website as part of its strategic plan, we recommend schools take on the following five tasks:

*Integrate the website as part of the strategic plan.* Integrating the school website as part of the marketing mix into the school's strategic plan (David & Ellison, 1997) will increase the school's capability for positioning itself, provide better control of 'word of mouth' communication, and build a solid reputation. The main conclusion from the current study is to introduce only well developed sections into the website. Opening more and more pages with nothing on them, or leaving them as one-time efforts (with the 'last update' some years ago), makes a very poor impression.

A strategic plan containing several elements such as market research, segmentation of the target markets, positioning the school, and promotion (David & Ellison, 1997) can make a better contribution by using the school website. But the school website contributes to the school's image and accountability efforts whether the staff is aware of it or not. Thus, learning the website's capabilities can only enhance the staff's ability to harness it for their strategic needs, knowing what effect it can have on potential visitors and clients.

*Enhance website responsiveness to the school environment.* To enhance website responsiveness we suggest presenting mainly the symbolic categories in the open section of the school websites, where username and password are not required. For presenting accountability and gaining environmental legitimacy and the resources that follow, the school has to present its achievements (Meyer & Rowan, 1992). Thus, sections like goal attainment, innovative and unique programs, information for parents, declarations regarding school goals and missions, and information on excellence, prizes, and social events are a necessity. The main idea is to show that the school is a good place to learn and that it follows environmental expectations. That is not to say that the technical sections, which mainly deal with the actual activities of teaching and learning, are not important. They certainly are, but for the school's needs. The absence of instructional activities from the open sections of the website will do no harm to the school, whereas presenting them can harm the school's autonomy and increase criticism (Meyer & Rowan, 1992).

*Nurture the interactive and cooperative character of the website.* The school website can be used as a channel of communication for reaching different groups of clients, like parents and prospective students. This means opening discussion groups, preparing a section for parents' input before and responses after open evenings and parent assemblies, establishing a talk-back section, downloading an FAQs (frequently asked questions) section, and providing email links to the principal, teachers, and webmasters. In this way the school staff can learn what people really think about their school, detect mistakes as they happen, and gather information that will help them to attract present and future constituents.

*Address the needs of different constituencies.* Using the school website for addressing different segments of the target market, like special education students and certain minorities, means opening and emphasizing special sections for them on the websites. This might be a section in a different language for HLL (Hebrew language learning) students or newcomers, or special software enabling special activities (like audio reading for blind students) and so on. In this way the school not only serves these groups but also presents these services to its potential constituents and enhances its prestige and image as a progressive and innovative school.

*Recognize website limitations.* There are also limitations involved in using a website. First, it needs a webmaster to run it. The webmaster's job is to update contents, respond to questions, and troubleshoot. Without this, the website quickly becomes a Hollywood set (McKenzie, 1997), which impairs accountability efforts. Second, the website needs content contributors. This means constantly gathering relevant and attractive information, otherwise the number of those among the school website visitors seeking information will be reduced. Finally, managing a good website is much easier if the school has sufficient financial resources to hire

an IT firm and its professional services. If not, professional teachers must operate via an off-the-shelf platform for which they should be trained in advance and rewarded afterwards to better facilitate their contribution.

In summary, schools that have a website are like the Moliere protagonist who has been speaking prose all his life and didn't even know it. The school website is a marketing tool, whether the school staff is aware of it or not. To make it a more perfect tool, awareness of its advantages and limitations is called for. Once this is achieved, it is definitely worth the trouble of integrating the school website into the school's strategic plan.

## References

Bell, L. (1999). Primary schools and the nature of the education market place. In T. Bush, L. Bell, R. Bolam, R. Glatter, & P. Ribbins (Eds.), *Educational management: Redefining theory, policy, practice* (pp. 59–75). London: Paul Chapman.

Benavot, A., & Resh, N. (2001). The social construction of the local school curriculum: Patterns of diversity and uniformity in Israeli junior high schools. *Comparative Education Review, 45,* 504–536.

Bush, T. (1999). The vanishing boundaries: The importance of effective external relations. In J. Lumpy & N. Foskett (Eds.), *Managing external relations in schools and colleges* (pp. 3–17). London: Paul Chapman.

Cumming, J. A., Bonk, C. J., & Jacobs, F. R. (2002). Twenty-first century college syllabi options for online communication and interactivity. *The Internet and Higher Education, 5,* 1–19.

Datnow, A., Hubbard, L., & Mehan, H. (2002). *Extending educational reform from one school to many.* New York: Routledge Falmer Press.

Davis, B., & Ellison, L. (1997). *Strategic marketing for schools.* London: Pitman.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Isomorphism and collective rationality in organizational fields. *American Sociological Review, 48,* 147–160.

Foskett, N. (1999). Strategy, external relations and marketing. In J. Lumpy & N. Foskett (Eds.), *Managing external relations in schools and colleges* (pp. 33–49). London: Paul Chapman.

Fullan, M. (2001). *The new meaning of educational change* (3rd ed.). London: Teacher College Press.

Giladi, M. (2004). *Windows of culture: An analysis of Israeli ORT school websites.* Unpublished master's thesis, University of Pretoria, Pretoria, South Africa.

Hesketh, A. J., & Selwyn, N. (1999). Surfing to school: The electronic reconstruction of institutional identities. *Oxford Review of Education, 25*(4), 501–520.

Hong, S., & Kim, J. (2004). Architectural criteria for website evaluation: Conceptual framework and empirical validation. *Behavior & Information Technology, 23*(5), 337–357.

Klein, S. (2005). School internet sites: A virtual display window to school's reality. Unpublished master's thesis, Ben-Gurion University, Beer-Sheva, Israel.

Kozma, R. B. (Ed.). (2003). *Technology, innovation, and educational change: A global perspective.* Eugene, OR: International Society for Technology in Education (ISTE).

Leping, L. D., & Johnson, L. (2005). Web-based resources and applications: Quality and influence. *Computers in the Schools, 21*(3/4), 131–146.

Maddux, C. D., & Johnson, D. L. (2006). Type II applications of information technology in education: The next revolution. *Computers in the Schools, 23*(1/2), 1–5.

Marks, H. M., & Nance, J. P. (2007). Contexts of accountability under systematic reform: Implications for principal influence on instruction and supervision. *Educational Administration Quarterly, 43*(1), 3–37.

McKenzie, J. (1997, January). Why in the world wide web? *Technology & Learning*. Retrieved September 21, 2007, from http://www.fno.org/mar97/why.html

Meyer, J. W., & Rowan, B. (1977). Institutional organizations, formal structure as myth and ceremony. *American Journal of Sociology, 83*(2), 340–363.

Meyer, J. W., & Rowan, B. (1992). The structure of educational organizations. In W. J. Meyer & W. R. Scott (Eds.), *Organizational environments: Ritual and rationality* (pp. 71–97). Thousand Oaks, CA: Sage.

Ministry of Education, Culture, and Sport—State of Isreal. (2006). *Schools Data* [Hebrew]. Retrieved June 21, 2006, from http://cms.education.gov.il/EducationCMS/Units/Owl/Hebrew/UvdotNetunim/netunim/

Miodusar, D., Nachmias, R., Lahav, O., & Oren, A. (2000). Web-based learning environments (WBLE): Current pedagogical and technological state. *Journal of Research on Computing in Education, 33*(1), 55–76.

Miodusar, D., Nachmias, R., Tubin, D., & Forkosh-Baruch, A. (2003). Analysis schema for the study of domains and levels of pedagogical innovation in schools using ICT. *Education and Information Technologies, 8*(1), 23–36.

Nachmias, R., Miodusar, D., Forkosh-Baruch, A., & Tubin, D. (2003). ICT policies and practices in education—Israel. In T. Plomp, R. Anderson, N. Law, & A. Quale (Eds.), *Cross national policies and practices on information and communication technology in education* (pp. 307–320). Greenwich, CT: Information Age.

National Center for Education Statistics (NCES). (2005). *2005 Digest of education statistics* (Chapter 2: Educational technology). Retrieved November 22, 2007, from http://nces.ed.gov/programs/digest/d05/tables/dt05_416.asp

Oplatka, I. (2004). The characteristics of the school organization and the constraints on market ideology in education: An institutional view. *Journal of Educational Policy, 9*(2), 143–161.

Oplatka, I., & Hemsley-Brown, J. (2004). The research on school marketing, current issues and future directions. *Journal of Educational Administration, 42*(3), 375–400.

Organization for Economic Co-operation and Development (OECD). (2006). *Demand-sensitive schooling? Evidence and issues.* Paris, France: Schooling for Tomorrow series, Centre for Educational Research and Innovation (CERI), OECD.

Pelgrum, W. J., & Anderson, R. E. (2001). *ICT and the emerging paradigm for life-long learning.* Netherlands: International Association for the Evaluation of Educational Achievement.

Plomp, T., Anderson, E. R., Law, N., & Quale, A. (Eds.). (2003). *Cross national policies and practices on information and communication technology in education.* Greenwich, CT: Information Age.

Rowan, B., & Miskel, C. G. (1999). Institutional theory and the study of educational organizations. In J. Murphy & K. S. Louis (Eds.), *Handbook of research on educational administration* (pp. 359–383). San Francisco: Jossey-Bass.

Scott, W. R. (2003). *Organizations: Rational, natural, and open system.* Englewood Cliffs, NJ: Prentice-Hall.

Selim, H. M. (2003). An empirical investigation of student acceptance of course websites. *Computer and Education, 40,* 343–360.

Shemla, A., & Nachmias, R. (2007). Current state of web-supported courses at Tel-Aviv University. *International Journal of E-Learning, 6*(2), 235–246.

Tubin, D., & Chen, D. (2002). School-based staff development for teaching within computerized learning environments. *Journal of Research on Technology in Education, 34*(4), 517–528.

Tubin, D., Miodusar, D., Nachmias, R., & Forkosh-Baruch, A. (2003). Domains and levels of pedagogical innovation in schools using ICT: Ten innovative schools in Israel. *Education and Information Technologies, 8*(2), 127–145.

Tyack, D., & Cuban, L. (1995). *Tinkering toward utopia: A century of public school reform.* Cambridge: Harvard University Press.

**Dorit Tubin is a Lecturer in the Department of Education at Ben-Gurion University of the Negev, Beer-Sheva, Israel.**

**Sarit Klein is a graduate student in the Department of Education at Ben-Gurion University of the Negev, Beer-Sheva, Israel.**