

index terms for searching MEDLINE on compact disc as I do guiding them around the vagaries of the library catalogue. My colleagues and I are, in fact, slowly adapting ourselves to the fact that what we have been doing is storing and retrieving things—books, journals, papers, etc, while what our customers often want is not things, but information. Up till now, however, much of the revolution which is leading to the 'death of the book' and the end of the scientific journal, has consisted of books and journal articles. I wonder if there is any evidence of Caxton or Gutenberg circulating illuminated manuscripts on 'the death of the illuminated manuscript' during the last communications revolution? I also wonder if I would have come across Dr Clayden's opinions if he had circulated them by electronic mail rather than in the form of a journal article.

More seriously, a cause for concern is the common delusion among doctors that because information is going to become available in an electronic form it is somehow going to be 'free'. A quick glance at the organisations currently involved should convince them that this is not the case—DIALOG, which is a subsidiary of the Lockheed Corporation, Pergamon Press, EM-BASE which is owned by Elsevier, and DATA-STAR which is owned by the Swiss Radio Corporation! It seems to me to be much more likely that those hospitals and medical schools which can make a major financial commitment to information systems will end up being much better served than they are at present, but that isolated specialists working in poorer parts of this country, let alone those in Bulgaria or Bangladesh, are going to be considerably more deprived of information than they are at present. Much of the technology already exists, but we do not have the staff to offer it. Brophy tells of a new polytechnic lecturer who had arrived from a commercial research organisation in which he had had a personalised publication bulletin every Monday, with all the documents he ticked in it delivered to his desk by Friday, and a regular visit from his information officer to make sure the document supply was on target.² The polytechnic had the technology to do the same, but it had an average of one subject librarian to 1100 readers, and is very unlikely to make the investment in people, as well as in equipment, necessary to take advantage of the technology.

One thing which puzzled me was Dr Clayden's implicit assumption that he is going to retain his functions, and even his title, during the information upheaval he predicts. The 'death of the book' surely implies the abolition of the 'reader in paediatrics'. Even if he changes his title to that of the less euphonious 'VDU-scanner in paediatrics' it seems to me to be much more likely that I will be able to stagger on as a sort of glorified jukebox attendant, but that many of Dr Clayden's functions can be taken over by an Expert System, on the one hand, and by far lower paid counsellors on the other. I hope and expect that he and I will get safely through to retirement all right, but I have doubts about our successors.

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1 Clayden G. The paediatric department library. *Arch Dis Child* 1991;66:370.

2 Brophy P. Organising for change in polytechnic libraries. *Library Association University College and Research Newsletter* 1991;32:10-6.

Dr Clayden comments:

I would support Mr Guha in his defence of the librarians' future. I was merely suggesting in my brief article that the medical library as a place might disappear. The librarians' role of custodians of information systems and experts in retrieval is already taking over from the role of guardians of books. We should not lose sight of the liberation from memorising facts which the accessibility of massive databases is increasingly allowing. I would imagine most patients would prefer their doctor to be expert in using data to solve their problems than merely being able to retrieve from their own memories the list of facts about a particular illness. Similarly, the librarian who is expert in retrieval of information is more vital than those expert in the effect of climate on the degeneration of books and manuscripts. It is inevitable that I should use a journal to communicate my opinions at this stage as the availability of electronic newsboards has been priced out of the market so far. Similarly, I cannot imagine that Bell attempted to phone his friends about modifications to his invention in the early years either.

I cannot agree in the long term with Mr Guha's anxiety about the developing world. An out of date book is perhaps as dangerous as no book at all. How many remote areas of the world are unable to receive radio broadcasts now? It is therefore easy to foresee the future of sonar powered computers receiving satellite transmitted signals to update databases and expert systems through the world.

On the personal side, I do have to admit to an early fear of books bred (or is it bread) as a result of a degree of dyslexia in childhood. Although the telephone and word processor may be our mode of communication, I welcome the humanity which shines through these contacts by friendly and supportive librarians as much as Mr Guha and I will value that of the future doctors into whose hands we will inevitably fall. Let up hope that their kindness and wisdom are also strengthened by all the powers of science and technology available in that hopefully distant time.

Squatting and urinary tract infection

SIR,—We read with interest the article by Hellström *et al* on the association of urinary symptoms and previous urinary tract infection.¹ Hellström *et al* found urinary tract infection in 15 (37%) of 41 children with squatting. We agree that urinary tract infection is common in children with squatting.² In the past 22 months we identified 16 children who presented with squatting at least once per week. The average age at our assessment was 77 months, range 47 to 126 months. There were 15 girls and one boy. The table shows the frequency of chronically holding the urine to the last minute and urinary tract infection in these children. None of the children had encopresis, a gait disturbance, a palpable defect in the lumbosacral spine, or an abnormal neurological examination.

Nine of the 16 children in our series had either a retrograde voiding cystourethrogram taken or cystoscopy performed. Four children had mild vesicoureteric reflux, two had trabeculated bladder (one also had a bladder

The frequency of chronically holding the urine to the last minute and urinary tract infection in children with squatting (results are number (%) of children)

	Frequency	
	Present series (n=16)	Hellström <i>et al</i> ¹ (n=41)
Chronic holding of urine	11 (69)	
Urinary tract infection	13 (81)	15 (37)

diverticulum), and one had urethral stenosis. Only two children had normal results on these studies and both of these children had a history of chronically holding the urine to the last minute. Four of the five children who did not hold their urine to the last minute had abnormal results on the studies.

Hellström *et al* questioned whether symptoms of bladder dysfunction or urinary tract infection come first and whether they develop in a causal relationship. We believe that both urinary tract infection and squatting develop consequent to a number of clinical conditions including chronically holding the urine to the last minute, detrusor sphincter incoordination, or urethral obstruction. Chronically holding the urine to the last minute may become a habit in some children and should be differentiated from children with urgency who do respond promptly to the signals of the need to void. In the former case, parents typically observe these children dancing around, fidgeting, or holding themselves, whereas in the latter case, the sensation comes on suddenly without any warning.

Instructing children to respond promptly to the signals of the need to void, take their time to completely empty the bladder, and void at least every two hours during the day should be part of the treatment plan for children with either urinary tract infection or squatting.

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1 Hellström A, Hanson E, Hansson S, Hjälmås K, Jodal U. Association between urinary symptoms at 7 years old and previous urinary tract infection. *Arch Dis Child* 1991;66:232-4.

2 Robson WLM. Urinary tract infection in children: diagnosis and treatment. *Canadian Family Physician* 1990;36:1597-600.

Gastro-oesophageal reflux and the lung

SIR,—I read with great interest the annotation by Professor Simpson and Dr Hampton about the inter-relationships between respiratory disorders and gastro-oesophageal reflux.¹ The authors did not mention an important group of children in whom respiratory disease and reflux may coexist, namely those with cystic fibrosis. The association between these conditions first came to light 10 years ago when two children were reported in whom gastro-oesophageal reflux disease with recurrent aspiration had been diagnosed, but who were subsequently discovered to have cystic fibrosis.² A study from 1985 described a questionnaire survey of 65 patients with cystic fibrosis in whom one quarter reported heartburn and/or regurgitation.³ A large scale, prospective study of the incidence of reflux in cystic