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CHESSLANDIA: A PARABLE

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Chesslandia was aptly named. In Chesslandia, almost everybody played chess. A child's earliest toys were chess pieces, chess boards, and figurines of famous chess masters. Children's bedtime tales focused on historical chess games and on great chess-playing folk heroes. Many of the children's television adventure programs were woven around a theme of chess strategy. Most adults watched chess matches on evening and weekend television.

Language was rich in chess vocabulary and metaphors. "I felt powerless—like a pawn facing a queen." "I sent her flowers as an opening gambit." "His methodical, breadth-first approach to problem solving does not suit him to be a player in our company." "I lacked mobility—I had no choice."

The reason was simple. Citizens of Chesslandia had to cope with the deadly CHESS MONSTER! The CHESS MONSTER, usually just called the CM, was large, strong, and fast. It had a voracious appetite for citizens of Chesslandia, although it could survive on a mixed diet of vegetation and small animals.

The CM was a wild animal in every respect but one. It was born with an ability to play chess and an innate desire to play the game. A CM's highest form of pleasure was to defeat a citizen of Chesslandia at a game of chess, and then to eat the defeated victim. Sometimes a CM would spare a defeated victim if the game was well played, perhaps savoring a future match.

In Chesslandia, young children were always accompanied by adults when they went outside. One could never tell when a CM might appear. The adult carried several portable chess boards. (While CMs usually traveled alone, sometimes a group traveled together. Citizens who were adept at playing several simultaneous chess games had a better chance of survival.)

Formal education for adulthood survival in Chesslandia began in the first grade. Indeed, in kindergarten children learned to draw pictures of chess boards and chess pieces. Many children learned how each piece moves even before entering kindergarten. Nursery rhyme songs and children's games helped this memorization process.

In the first grade, students were expected to master the rudiments of chess. They learned to set up the board, name the pieces, make each of the legal moves, and tell when a game had ended. Students learned chess notation so they could record their moves and begin to read chess books. Reading was taught from the "Dick and Jane Chess Series." Even first graders played important roles in the school play, presented at the end of each year. The play was about a famous chess master and contained the immortal lines, "To castle or not to castle—that is the question."

In the second grade, students began studying chess openings. The goal was to memorize the details of the 1,000 most important openings before finishing high school. A spiral curriculum had been developed over the years. Certain key chess ideas were introduced at each grade level, and then reviewed and studied in more depth each subsequent year.

As might be expected, some children had more natural chess talent than others. By the end of the third grade, some students were a full two years behind grade level. Such chess illiteracy caught the eyes of the nation, so soon there were massive, federally funded remediation programs. There were also gifted and talented programs for students who were particularly adept at learning chess. One especially noteworthy program taught fourth grade gifted and talented students to play blindfold chess. (Although CMs were not nocturnal creatures, they were sometimes still out hunting at dusk. Besides, a solar eclipse could lead to darkness during the day.)

Some students just could not learn to play a decent game of chess, remaining chess illiterate no matter how many years they went to school. This necessitated lifelong supervision in institutions or shelter homes. For years

there was a major controversy as to whether these students should attend special schools or be integrated into the regular school system. Surprisingly, when this integration was mandated by law, many of these students did quite well in subjects not requiring a deep mastery of chess. However, such subjects were considered to have little academic merit.

The secondary school curriculum allowed for specialization. Students could focus on the world history of chess, or they could study the chess history of their own country. One high school built a course around the chess history of its community, with students digging into historical records and interviewing people in a retirement home.

Students in mathematics courses studied breadth-first versus depth-first algorithms, board evaluation functions, and the underlying mathematical theory of chess. A book titled, *A Mathematical Analysis of Some Roles of Center Control in Mobility*, was often used as a text in the advanced placement course for students intending to go on to college.

Some schools offered a psychology course with a theme on how to psych out an opponent. This course was controversial, because there was little evidence one could psych out a CM. However, proponents of the course claimed it was also applicable to business and other areas.

Students of dance and drama learned to represent chess pieces, their movement, the flow of a game, the interplay of pieces, and the beauty of a well-played match. But such studies were deemed to carry little weight toward getting into the better colleges.

All of this was, course, long, long ago. All contact with Chesslandia has been lost for many years.

That is, of course, another story. We know its beginning. The Chesslandia government and industry supported a massive educational research and development program. Of course, the main body of research funds was devoted to facilitating progress in the theory and pedagogy of chess. Eventually, however, quite independently of education, the electronic digital computer was invented.

Quite early on it became evident that a computer could be programmed to play chess. But, it was argued, this would be of little practical value.

Computers could never play as well as adult citizens. And besides, computers were very large, expensive, and hard to learn to use. Thus, educational research funds for computer-chess were severely restricted.

However, over a period of years computers got faster, cheaper, smaller, and easier to use. Better and better chess programs were developed. Eventually, portable chess-playing computers were developed, and these machines could play better than most adult citizens. Laboratory experiments were conducted, using CMs from zoos, to see what happened when these machines were pitted against CMs. It soon became evident that portable chess-machines could easily defeat most CMs.

While educators were slow to understand the deeper implications of chess-playing computers, many soon decided that the machines could be used in schools. “Students can practice against the chess-machine. The machine can be set to play at an appropriate level, it can keep detailed records of each game, and it has infinite patience.” Parents called for “chess-machine literacy” to be included in the curriculum. Several state legislatures passed requirements that all students in their schools must pass a chess-machine literacy test.

At the same time, a few educational philosophers began to question the merits of the current curricula, even those which included a chess-computer literacy course. Why should the curriculum spend so much time teaching students to play chess? Why not just equip each student with a chess-machine, and revise the curriculum so it focuses on other topics?

There was a call for educational reform, especially from people who had a substantial knowledge of how to use computers to play chess and to help solve other types of problems. Opposition from most educators and parents was strong. “A chess-machine cannot and will never think like an adult citizen. Moreover, there are a few CMs that can defeat the best chess-machine. Besides, one can never tell when the batteries in the chess-machine might wear out.” A third grade teacher noted that “I teach students the end game. What will I do if I don’t teach students to deal with the end game?” Other leading citizens and educators noted that chess was much more than a game. It was a language, a culture, a value system, a way of deciding who will get into the better colleges or get the better jobs.

Many parents and educators were confused. They wanted the best possible education for their children. Many felt that the discipline of learning to play chess was essential to successful adulthood. “I would never want to become dependent on a machine. I remember having to memorize three different chess openings each week. And I remember the worksheets that we had to do each night, practicing these openings over and over. I feel that this type of homework builds character.”

The education riots began soon thereafter.

Retrospective Comments, March 2002

In 1997, a computer beat the reigning world chess champion in a six-game match.

I think “Chesslandia: A Parable” is my all-time favorite editorial. It seems as relevant now as it was when I wrote in. During the next two decades, it is quite likely that computer systems will be built that are at least 1,000 times as fast as current machines. People will have routine access to microcomputers that are a thousand time the speed of current microcomputers. People will have routine access to networks that are a thousand times as fast as today’s networks.

What will our schools be like????

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