CSC416 Foundations of Artificial Intelligence
**Beyond AI Study/Discussion Guide**

**Chapter Title:** Diaspora

**Top Ten Salient Sentence Blocks**

1. "And yet it's clear that in the second half of hits history, from the 1980s to date, AI quit growing up and began to grow out. The image that comes to mind is of the column of smoke from a cigarette, rising until it hits a "glass ceiling" then spreading out to form a cloud. It covers more territory, but not at a higher level." (p. 82)
2. "One of the reasons for this is quite practical. By 1980 AI had developed a stock of techniques that were powerful enough to handle a wide variety of real-world problems, and a significant amount of effort was diverted into doing useful things." (p. 82)
3. "And we mustn't forget that the 1980s was the decade in which the personal computer exploded from an arcane hobby into a major market. Quite a lot of technical talent was absorbed (much of it reinventing the mainframe software techniques of the 1960s and 1970s) that might otherwise have contributed to real advances in computer science, including AI." (p. 83)
4. "From the standpoint of researchers grappling with it, AI systems are brittle; if you confront them with anything outside their narrow area of expertise, they produce nonsense." (p. 83)
5. "But what's the human brain, as a raw computational engine? It has up to 100 billion neurons ($10^{11}$), each with up to 10,000 connections ($10^4$), and firing up to 100 times per second ($10^2$)." (p. 86)
6. "Programming at the highest levels, like any world-class creative art, is an extremely personal activity. Since LISP made modification of the language easy because of its self-referential properties, a diaspora of dialects was almost inevitable." (p. 88)
7. "The problem is that nobody ever bothered to define what a planet is. Everybody just knew." (p. 89)
8. "Consider the sentence, 'Time flies like an arrow.' This is a classic example of syntactic ambiguity in English." (p. 92)
9. "Q: Is there any water in the refrigerator?
    A: Yes—in the cells of the eggplant." (p. 94)
10. "Reactive programming may help the programming world handle feedback in an elegant way. This would not only help AI get its feet on the ground, but would also cut development costs and the number of bugs in all interactive software in half while making it more responsive to the user." (p. 101)