```
def gibbs(Seqs, k):
    """Seqs is a list of strings. Find the best motif."""

    # start with random indices
    I = [random.randint(0, len(x) - k) for x in Seqs]

    LastI = None
    while I != LastI:      # repeat until nothing changes
        LastI = list(I)

        # iterate through every string
        for i in xrange(len(Seqs)):
            # compute the profile for the sequences except i
            P = profile_for([
                    x[j : j + k] for q, (x, j) in enumerate(zip(Seqs, I))
                    if q != i
                ])

            # find the place the profile matches best
            best = None
            for j in xrange(len(Seqs[i]) - k + 1):
                score = profile_score(P, Seqs[i][j : j + k])
                if score > best or best is None:
                    best = score
                    bestpos = j
            # update the ith position with the best
            I[i] = bestpos

    return I, [x[j : j + k] for x, j in zip(Seqs, I)]
```