Source Code:

```
import random

def build_markov_chain(text):
    words = text.split()
    markov_chain = {}

    for i in range(len(words) - 1):
        word, next_word = words[i], words[i + 1]
        if word not in markov_chain:
            markov_chain[word] = []
        markov_chain[word].append(next_word)

    return markov_chain

def generate_text(chain, start_word, length=20):
    word = start_word
    output = [word]

    for _ in range(length - 1):
        next_words = chain.get(word)
        if not next_words:
            break
        word = random.choice(next_words)
        output.append(word)

    return ' '.join(output)


sample_text = "Hello there. This is a simple example of text generation using Markov chains."
```

```
chain = build_markov_chain(sample_text)
generated = generate_text(chain, start_word="Hello", length=15)

print("Generated Text:")
print(generated)
```