**Emergence of New Fields and Interdisciplines**
1) comparative literature, American studies, area studies
2) social psychology, biochemistry, molecular biology, radio astronomy, cognitive science, materials science
3) environmental studies, STS, urban studies, black, ethnic/women's studies
4) expansion of cultural/global/international/post-colonial studies
5) film studies, information sciences, media and communication studies
6) regional studies, historical periods
7) peace and conflict studies, policy studies, gerontology, criminology, labor/future studies;
8) clinical and translational science, digital humanities

**New Syntheses, Theories, and Paradigms**
9) plate tectonics, “man-land” shift in geography, biocomplexity
10) general systems theory, structuralism, chaos theory, Marxism
11) new ID categories of knowledge: e.g., gender, culture, sustainability, globalization
12) shift from disease model in medicine to health and wellness model
13) boundary crossing between humanities and social sciences

**Prominent Initiatives**
14) precedents: agriculture experiment stations, WWII defense research, space exploration
15) post 1970s: international competition in science-based industries of engineering and manufacturing, computers, biotechnology, biomedicine, defense, nanotechnology
16) recent large-scale initiatives: e.g., Human Genome Project

**Quiet Daily Flow of Influence**
17) borrowing of tools, methods, concepts, and theories
18) common instrumentation, shared data and facilities
19) collaboration and teamwork

**Educational Reform**
20) legacy of experimental programs and new field studies in 1960s and 70s
21) 1980s+ mainstreaming in general education
22) reforms of major and graduate education + continuing professional education
23) heightened theme and problem focus across disciplines and fields
24) broadening teaching and learning movement, integrative studies

**Trendlines**
25) The 4 drivers of Facilitating Interdisciplinarity
26) Heightened imperative in management, policy, and funding
27) Expanding literature
28) Changing relationship of disciplinarity and interdisciplinarity
29) Expanding shadow structure of IDR and IDS
30) Ascendancy of transdisciplinarity
31) The digital horizon
Interdisciplinarity (ID) integrates information, data, methods, tools, concepts, and/or theories from two or more disciplines focused on a complex question, problem, topic, or theme. Scope and goals differ: from borrowing to large initiatives. The most common criterion is Integration.

Transdisciplinarity (TD) transcends disciplinary approaches through comprehensive or synthetic frameworks, including general systems, sustainability, feminist theory, cultural critique, and a holistic paradigm of health and wellness. In the late 20th century, it also became aligned with problem-oriented research that crosses boundaries of academic and public sectors.

Beginning Resources

- Association for Interdisciplinary Studies. <http://www.units.muohio.edu/aisorg/>
- Network for Transdisciplinary Research (td-net). <www.transdisciplinarity.ch/>