Open and Distance e-Learning: What, When, Why

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Roadmap

1. Definitions (Key concepts in ODeL)

2. Generations (Evolution of ODeL)

3. Rationales (Why ODeL)

Definitions

Definitions
Open and distance e-learning (ODeL)

- "[F]orms of education provision that use contemporary technologies to enable varied combinations of synchronous and asynchronous communication among learners and educators who are physically separated from one another for part or all of the educational experience" (Alfonso, 2012, n.p.)

- Expansion of the term 'open and distance learning' (ODL), "[a] learning system that combines open learning characteristics with distance delivery" (Abrioux, 2006b, p, 10), to include the adoption of e-learning or online learning methodologies

- Convergence of 'open learning', 'distance education', and 'e-learning'

Open learning

- "An approach to learning that gives students flexibility and choice over what, when, at what pace, where, and how they learn"

- A philosophy of education: "to be open to people, places, methods and ideas"

  - accessibility to more students, including and especially non-traditional learners

  - "independence of learning location"

  - "methodological flexibility"

  - open exchange of ideas

Definitions
Distance education (DE)

- A mode of education where teachers and learners are physically separated most of the time

- Usually contrasted with conventional, face-to-face, classroom-based instruction

- "[P]lanned learning that normally occurs in a different place from teaching and as a result requires special techniques of course design, special instructional techniques, special methods of communication by electronic and other technology, as well as special organisational and administrative arrangements" (Moore & Kearsley, 2004, p. 2)

Definitions
e-Learning

- "[L]earning [that is] facilitated and supported through the use of information and communications technology" (JISC, 2012) such as computers, interactive whiteboards, digital cameras, mobile phones, online communication tools, and VLEs

- Also known as technology-supported learning

- May take place in the context of campus-based instruction and/or in DE contexts; modes include e-learning in the classroom, online learning, and blended learning

Definitions
Online learning

- Involves "use of the Internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience" (Ally, 2008, p. 17)

- One type of DE, but it is not always DE — i.e. it may be a component of conventional on-campus education

Blended learning

- A pedagogical approach "that combines face-to-face meetings with deliberately designed online activity" (Haythornthwaite & Andrews, 2011, p. 13), such as online discussion forums to discuss particular course topics outside of regular class hours

- Integration of face-to-face oral communication and online written communication (Garrison & Vaughan, 2008)

Adapted from Power (2008)
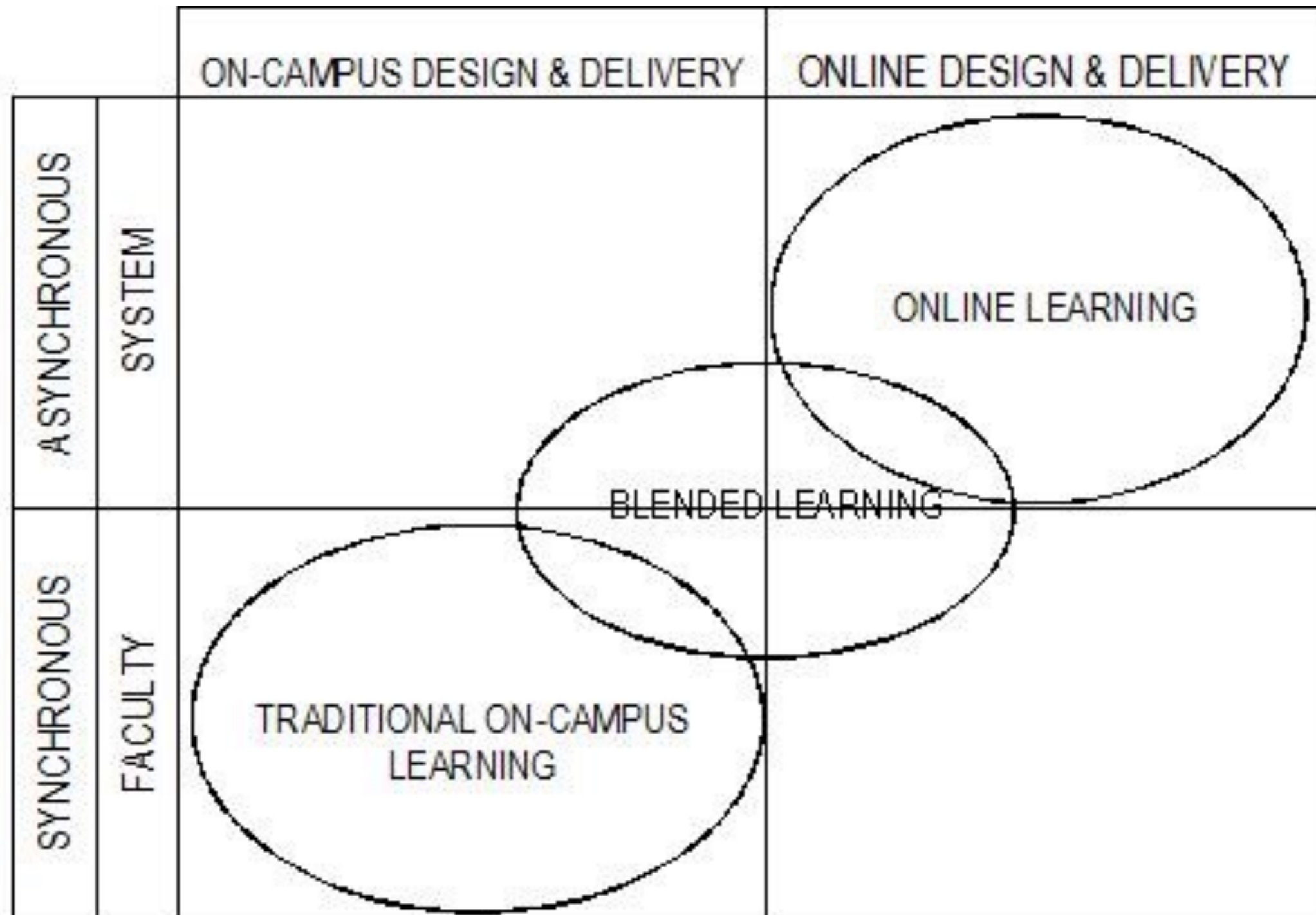
Generations

Generations
By technology used (Taylor, 2001)

1. Correspondence education - use of print and postal technologies

2. Mass media-based education - use of one-way, broadcast technologies (television, radio, film)

3. Telelearning - use of conferencing technologies (text, audio, video, Web conferencing)

4. Intelligent flexible learning - use of interactive multimedia online and computer-mediated communication (CMC)

5. Flexible learning - use of campus portals and CMC with automated response systems, in addition to interactive multimedia online

Generations

By technology used **(Anderson & Elloumi, 2004)**

1. Correspondence study

2. Use of mass media

3. Use of synchronous technologies

4. Use of computer conferencing

5. Use of educational Semantic Web

Generations of online learning (Downes, 2011)

1. placing learning content online; programmed learning (Generation 0)

2. networked learning: using bulletin boards and email to communicate (Generation 1)

3. application of computer games to online learning: multiple users in open-ended game environments engaged in synchronous, real-time communication and collaborative activities (Generation 2)

4. introduction of CMSs and LMSs; putting content and communication together in the same online environment (Generation 3)

5. e-learning 2.0 - learners authoring content and distributing it to their networks using social software (Web 2.0); mobile computing ("platform independence"); the rise of open content

6. massive open online courses (MOOCs): leveraging widespread free and open content and applications and cloud-based connectivity/networks (persistent networks); content is created and shared by the participants; distributed technology and distributed knowledge => connectivism

Generations

'Pedagogical generations' (Anderson & Dron, 2011)

1. Cognitive-behaviourist generation - focus on knowledge transmission, emphasis on highly structured content using instructional systems design, with minimal social presence (learning largely an individual process) and reduced teacher presence (teacher-learner interaction through summative assessment)

2. Social-constructivist generation - focus on construction of meaning by/in a community of learners, emphasis on interaction and dialogue

3. Connectivist generation - focus on 'produsage' — i.e. production as consumption of educational content in/through networks

Anderson & Dron's pedagogical generations

Generation of distance education pedagogy	Technology	Learning activities	Learner granularity	Content granularity	Evaluation	Teacher role	Scalability
Cognitive–behaviourism	Mass media: Print, TV, radio, one-to-one communication	Read and watch	Individual	Fine: scripted and designed from the ground up	Recall	Content creator, sage on the stage	High
Constructivism	Conferencing (audio, video, and Web), many-to-many communication	Discuss, create, construct	Group	Medium: scaffolded and arranged, teacher-guided	Synthesize: essays	Discussion leader, guide on the side	Low
Connectivism	Web 2.0: Social networks, aggregation & recommender systems	Explore, connect, create, and evaluate	Network	Coarse: mainly at object and person level, self-created	Artifact creation	Critical friend, co-traveler	Medium

Generations

Changing emphasis **(Burge& Polec, 2008)**

▸from course ***Content*** (high quality, pre-designed materials + mostly written text correspondence)

▸to ***Connection*** (real-time structured discussions and adaptive teaching responses)

▸to ***Community*** (aiming for group synergies in a medium that enable both self-interest and group-interest behaviours)

Some observations

- No single generation has provided all the answers, and each has built on foundations of its predecessors rather than replacing the earlier prototype => co-existence of generations

- With new affordances, "it becomes possible to explore and capitalize on different aspects of the learning process"

- "For each mode of engagement, different types of knowledge, learning, and contexts must be applied"

- Demand for educators and students to be skilled and informed to select the best mix(es) of pedagogy and technology

- Role of cognitivist, behaviourist, constructivist, and connectivist theories of learning in enhancing learning effectiveness: each provides an understanding of how people can learn more effectively

Rationales

Rationales
Why ODeL?

✓ To broaden access; to reach the unreached

✓ To improve quality

✓ To reduce costs

✓ To achieve cost-effectiveness

Rationales
'Iron triangle' (Daniel, 2009)

- Any two of the following — flexible access, quality learning experience and cost-effectiveness – can be achieved but not all three at once (Kanuka & Brooks, 2010, p. 69)

- Trade-offs among the three key elements; triangle has a fixed-length perimeter such that one can only increase access to a given course under circumstances where one lowers its level of quality (Daniel, 2009)
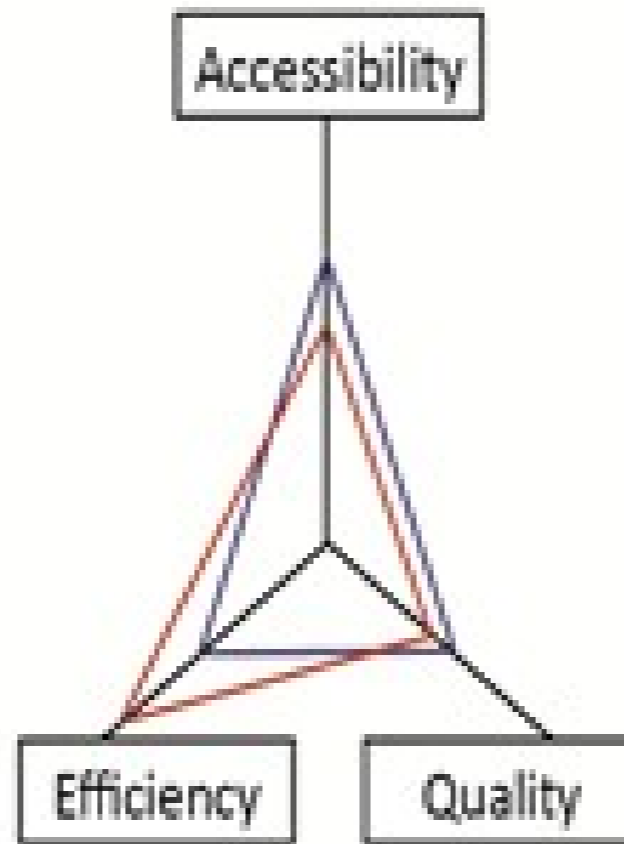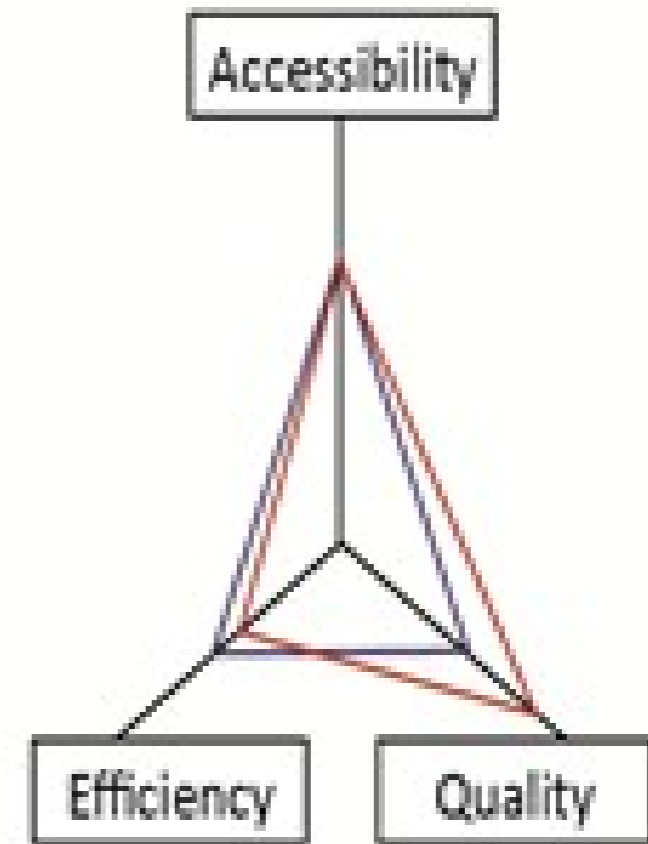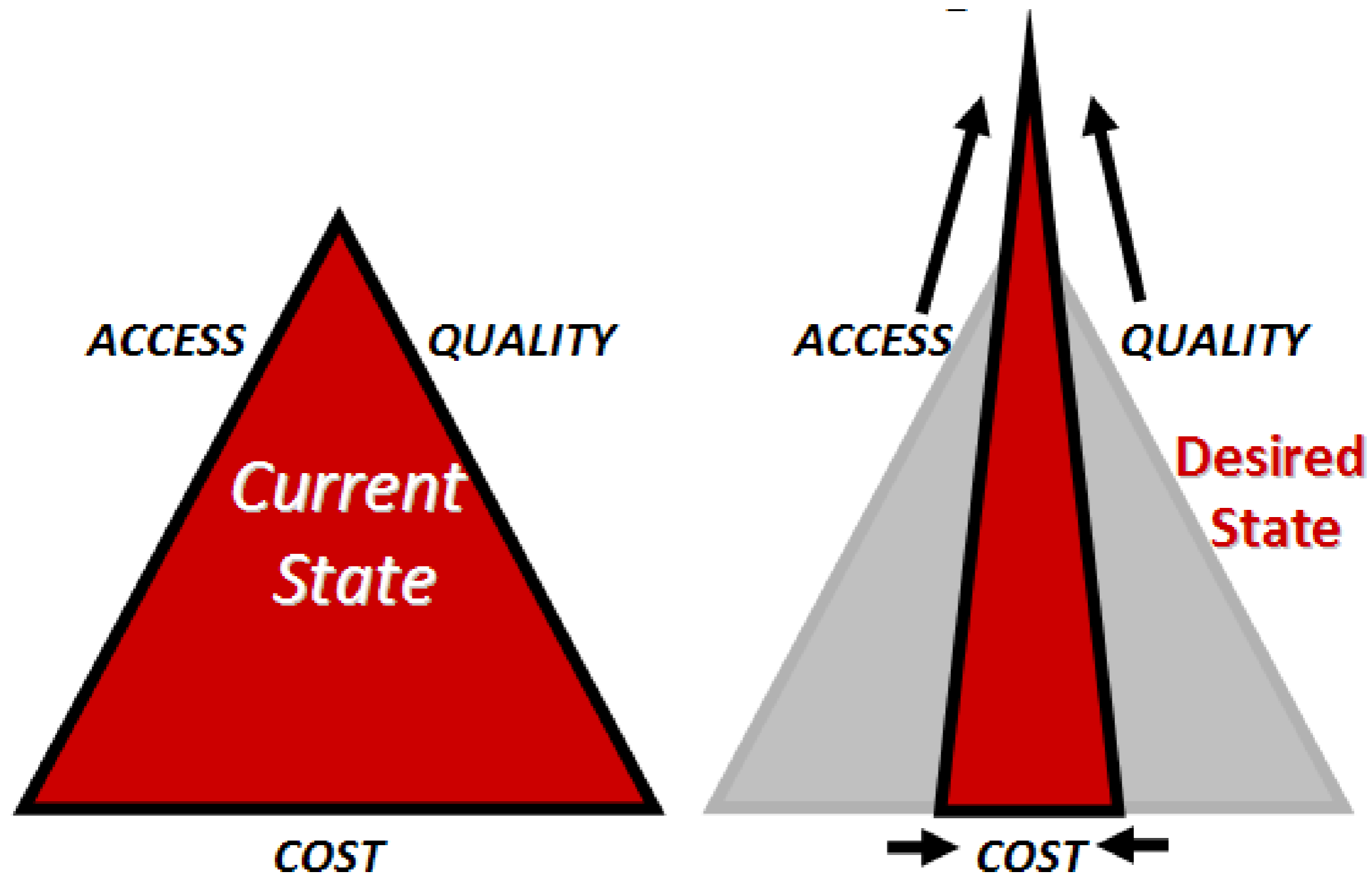
Rationales
'Iron triangle'
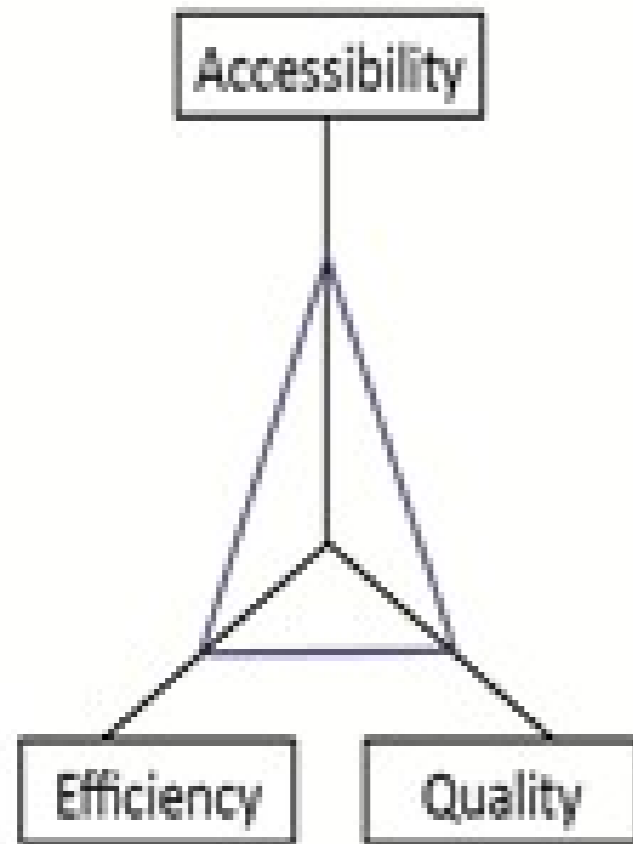
Rationales
DE as a way out of the iron triangle

- DE as a way of breaking out of the iron triangle, because it lowers cost while maintaining quality and increasing accessibility => the overall fixed-length perimeter can be extended, allowing the accessibility and quality sides of the triangle to be extended without a corresponding increase in the size of the cost vector (Daniel, 2009)
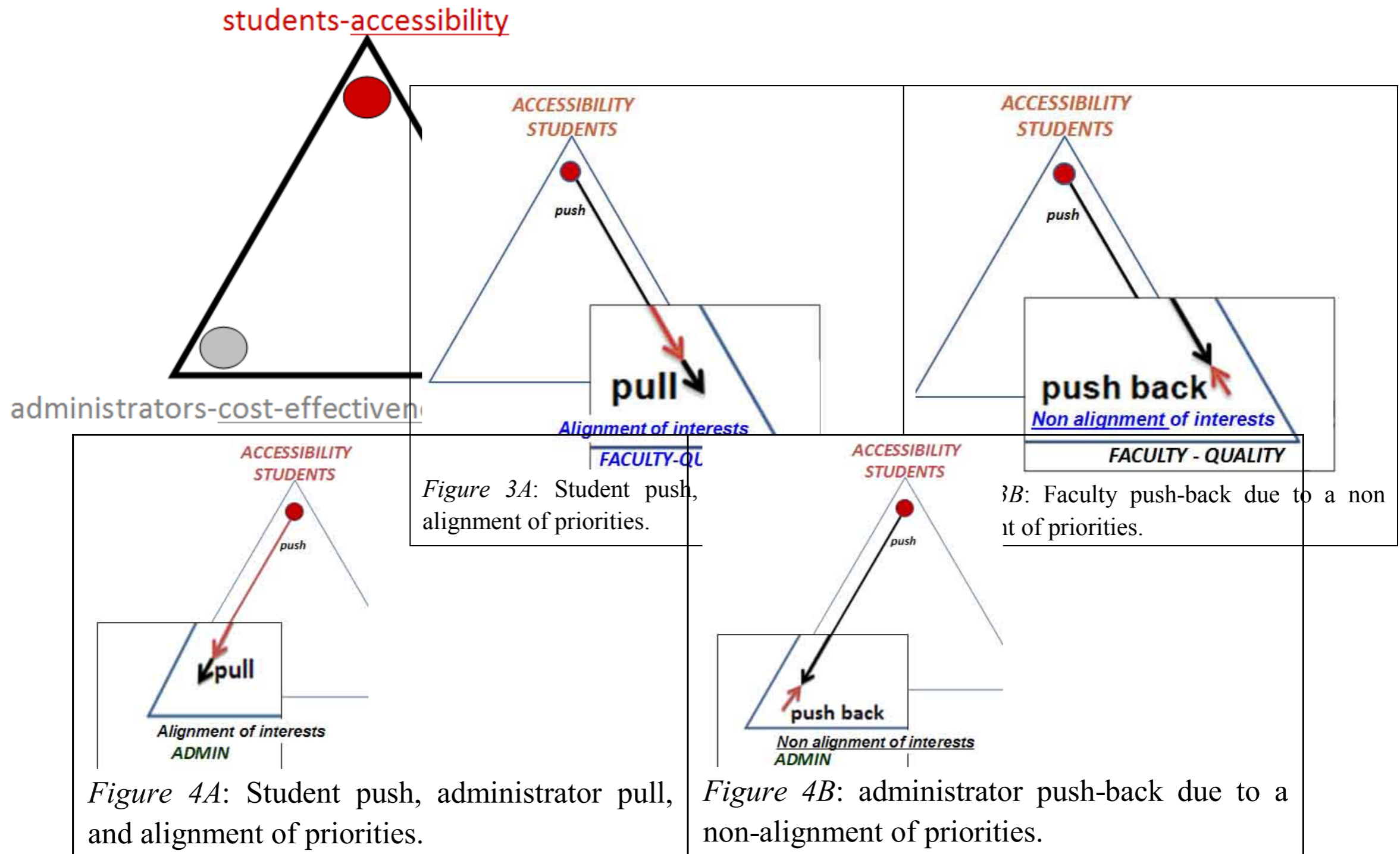
ACCESS   QUALITY

Current State

COST

ACCESS   QUALITY

Desired State

COST

Rationales
Iron triangle revisited (Power & Gould-Morven, 2011)

Figure 3A: Student push, alignment of priorities.

Figure 3B: Faculty push-back due to a non alignment of priorities.

Figure 4A: Student push, administrator pull, and alignment of priorities.

Figure 4B: administrator push-back due to a non-alignment of priorities.

Rationales
BOLD to break out of the iron triangle

- BOLD (blended online learning design) as an alternative to traditional DE

- Combines use of an LMS for asynchronous communication and a desktop conferencing environment

- Power (2008): BOLD departs from "a classical DE design and development-focused model" because it allows "students and faculty to interact in a fashion quite similar to the on-campus experience while accessing powerful screen- sharing and Web browsing functions" (p. 503), and it enables faculty to "utilise a thoroughly socioconstructivist-oriented learning environment" (p. 509); addresses reduced accessibility for learners who cannot participate in synchronous sessions through the recording of sessions
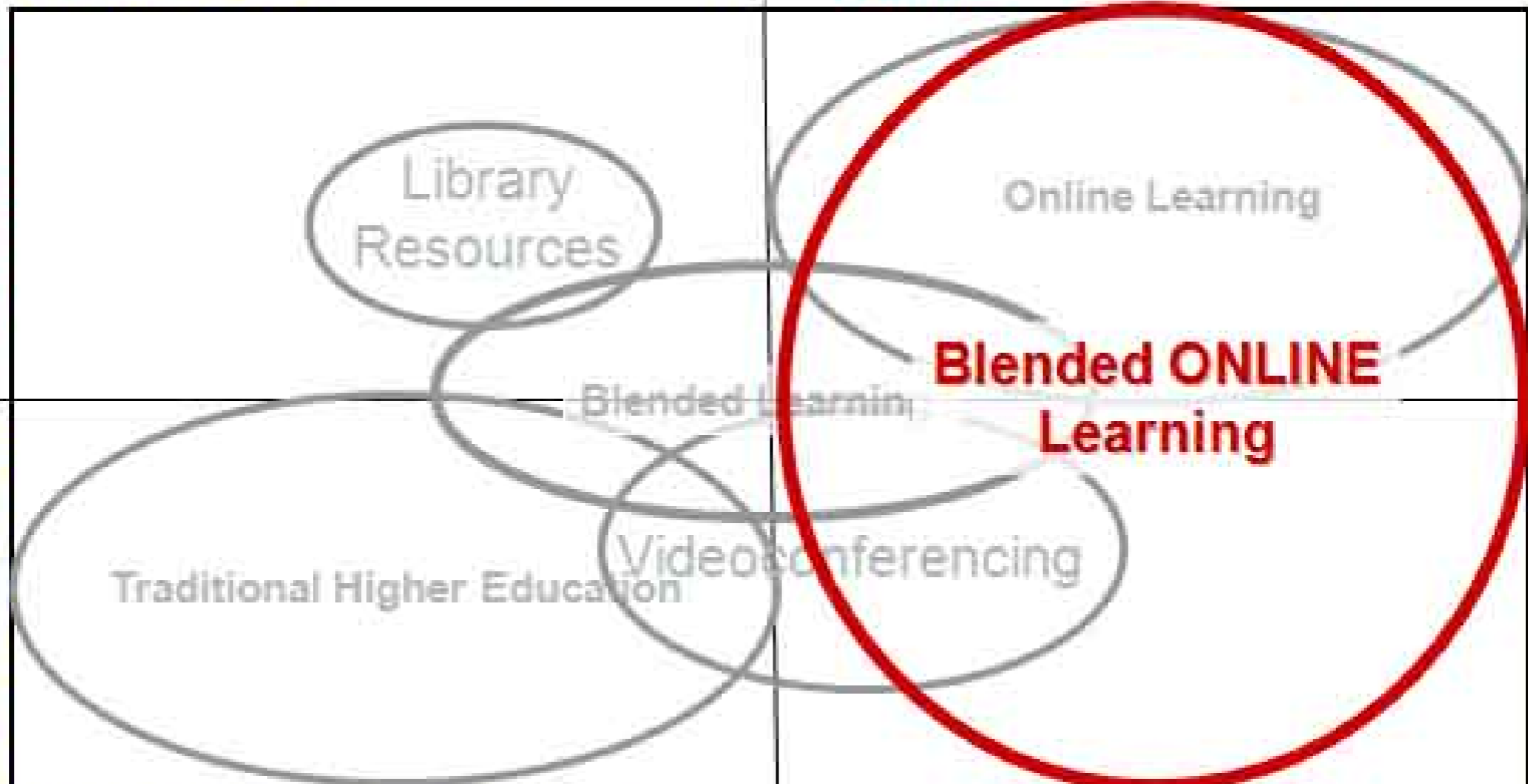
Figure 6. The blended online learning design (BOLD) model.

Rationales
Caveats

- BOLD as an alternative for traditional universities adopting DE as a means to broaden access to higher education and to increase enrolments at little or no additional cost; an option for dual-mode DE institutions, or institutions offering both on-campus and DE programmes

- Diversity among learners: those traditionally marginalised by geographic location and economic circumstances as well as those who mix on-campus and distance learning to maximise flexibility (Calvert, 2005)

- Need for a mix of pedagogical approaches

Rationales
from DE to BOLD to ODeL

- ODeL encompasses open learning and DE as well as all variants of e-learning, including blended online learning

- A more inclusive term and may be used to characterise the full range of course design practices that are possible in online DE

- Larreamendy-Joerns & Leinhardt (2006): it is the diversity of 'online instruction' in terms of "subject matters, technological means, learning styles, and implementation scenarios (e.g., stand-alone, blended instruction, synchronous online teaching)... that ultimately will allow online instruction to meet the expectations of a student population as diverse as that in traditional higher education" (p. 595)

- A reminder that online instruction has inherited from DE the ideals of openness and democratisation of access to higher education — an idea which the term ODeL communicates with its inclusion of the term 'open' aside from 'distance' and 'e-learning'

Thank you.