OMDE 601 9041 GROUP 2

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The Development Waves of Distance Education

FIRST WAVE OF DISTANCE EDUCATION DEVELOPMENT (1840s- 1970s)

1) Larger Context (economics/ politics/ societal values and pressures/ government policies/ technological advances)	2) Theories/ Ways of Understanding	3) Institutional and Organizational Developments/ System	4) Teaching/ Learning Methodologies (role of teacher/role of learner)	5) Predominant Technologies	6) Key Authors
The Industrialized societies identified the need to expand education broadly.

Division of labour

Lack of resources may have prevented equal access for all.

Upward social mobility (the class system).

Geographical differences / conflicts / | Behaviourist Theories- Provide the stimulus and learners would adopt the practice and thereby change behaviour

Positivism.

Constructivist approach.

Focus on independent learning. Industrialized | Government helped to drive processes.

Centralization issues.

Access for citizens.

Demand driven by the citizens.

Correspondence Schools were set up to address the challenge of missing school during world wars (Haughey, 2010). | Separation between teacher and learner.

Physical separation.

Time separation.

 Social separation.

 Learners merely had to consume the information provided. Individual study.

 Learn from previous experiences. Individualized ability | Largely print based.

Industrialization brought with it developments in printing technologies.

Mass production of information via emerging print industry.

Learn through: reading | **PIONEERS:**

Caleb Phillips (1728)

A.E. Tickner

W. Harper

H.S. Hermod

C. Wedemeyer

Charles Toussaint

Thomas J. Forester |

discrimination / marginalization could have denied access to some in certain societies. Gender discrimination in some societies meant that female students could not attend public or private schooling. World wars also took the focus away from public schooling and caused massive lag in education during warring years. Access to education became an overriding concern in many countries. Combine study and work. Minimize costs of education. Home study as referred to by for profit organisations and " independent study" as referred by universities	model. Empathy approach & didactic conversation was the presentation of the course subject in a conversational style (Holmberg, 2005, p.23). Rustin Approach: revolves around the creation and handing out self-instructional material (Holmberg, 2005, p. 14). Harper believed in more structured and paced courses (Holmberg, 2005, p. 16). Hermod believed in the freedom of the student to study as it suited them (Holmberg, 2005, p. 16).	University of London (1836) (Holmberg, 2005, p. 14). University of Chicago (1892) (Holmberg, 2005, p. 15). International Correspondence Schools (ICS) in Scranton, PA later became the Harcourt Learning Direct (Holmberg, 2005, p. 16). University of Queensland (Holmberg, 2005, p. 16).	to study the materials. Supervised correspondence education for primary and secondary students and began in Australia in the early 20th century (Holmberg, 2005, p. 16).		AUTHORS: G.B. Childs O . Peters J.S. Daniels R. M. Delling WA Dinsdale G. Gadden B. Holmberg D. Keegan

(Moore & Kearsley, 2012 p. 23). Giving access to those unprovided for otherwise. Societal imperatives (e.g. South Africa meant barring / exclusion of people of colour to higher education or confined to "bush colleges" - so only access was to Unisa - a DE institution				

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SECOND WAVE OF DEVELOPMENT (1960-1990)
Systems Approach to Distance Education
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1) Larger Context (economics/ politics/ societal values and pressures/ government policies/ technological advances)	2) Theories/ Ways of Understanding	3) Institutional and Organizational Developments/ System	4) Teaching/ Learning Methodologies role of teacher/role of learner	5) Predominant Technologies	6)Key Authors
Post industrialization Systems were needed to support student learning. Need for a model to handle numerous decisions that are in line with university policies (Haughey 2010). Quality assurance of course design and development processes. Enhance student learning and interaction. "Open education movement"	Andragogy - a theory developed for the adult learner with 6 assumptions outlined by Knowles: a need to know, self- concept, a readiness to learn, an orientation to learn, and motivation (Knowles, Holton, & Swanson, 2005, p.64-69) . Theory of Transactional Distance - DE students and administrators need to overcome a distance in understanding and	Design of open universities, "inability to come to terms with the consistent combined approach of face to face", Shale (2010) British Open University established. http://www.open.ac.uk/research projects/historyofou/ (2015). "Schools of the air came into being to broadcast K-12 educational programs " Moore & Kearsley (2012, p.29). Single mode universities is an institution where distance education is the sole focus n	University administrators become involved in course design and quality assurance. Division of labour described by Peters (2010) where roles were defined in terms of faculty and staff. Learner support system in the OU UK model - Student - instructor dialogue with the tutor playing an important role to help develop a community of learners (Cleveland-Innes &	Printed material Radio. Television. Audio cassettes Videoconferencing. Teleconferencing. Post or mail. Satellite technology.	Margaret Haughey Michael Moore Greg Kearsley Otto Peters Gary Miller Alan Tait Malcolm Knowles Tony Bates Albert Sangra

Haughey (2010, p. 33). The development of the Open University coupled with industrialization drove people to embark on studies of their choice (Cleveland-Innes & Garrison, 2010, p. 33). Mass Education Britain's Open University with the intention of delivering high quality, low-cost off campus education.(Bates & Sangra, 2011; Moore & Kearsley, 2012). Political push for educational development of citizens at a distance Opportunities for development of professional, scholarly literature for principles and strategies in DE and traditional education. (2012, p. 62-66). Education/Learning centers with private and part-time tutors, TV, radio, printed materials and books. (Cleveland-Innes & Garrison, 2010). Distance Education programs and universities continue to struggle to gain esteem in	geography. 3 components: dialogue, structure, and learner autonomy (Reyes, 2013, p.44). Guided Didactic Model - Guided two-way communication to inspire self-learning and student motivation (Moore & Kearsley, 2012, p. 210). Behaviorist theory - Teacher has control, material is highly structured, and interaction is based on assessment of student mastery (Moore & Kearsley, 2012, p. 213). Constructivist approach- The way students learn is cognitively constructed. Student responsible for constructing meaning and being active in communication to gain knowledge (Moore & Kearsley, 2012, p. 215).	(Moore & Kearsley, 2012, p. 4) Resistance from Conventional universities Community colleges, in particularly, created new DE course using public television: the telecourse (Cleveland-Innes & Garrison, 2010, p.30-31). External studies are a semi-independent body still worked in conjunction with a host university. The host university had final say on the courses offered from the external studies unit (Cleveland-Innes & Garrison, 2010, p. 92-93). Open learning institutions began collaborations to share courses and course materials. An example includes the International University Consortium (Cleveland-Innes & Garrison, 2010, p. 34). Free delivery of education. Open University United Kingdom (1969) (Haughey, 2010, p.50).	Garrison, 2010, p. 57-58) Asynchronous/ synchronous methodologies Personal and Self-improvement effort in studies. Autonomous Learning Seminars, Conferences		Borje Holmberg Doug Shale David Jonassen Mark Davidson Mauri Collins John Campbell Brenda Bannan Haag Martha Cleveland-Innes Randy Garrison

higher education circles (Cleveland-Innes & Garrison, 2010, p. 101).	Systems Approach- The systems to allow for more coordination and quality assurance. Moore and Kearsley (2012) claim "...a total systems approach, designers try to use a rich combination of all the media, delivered by the most convenient technologies, so that the learners benefit from the pedagogical strengths of each of them" (p. 72).				

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THIRD WAVE OF DEVELOPMENT (1995-....)
Internet/Web-Based Communication
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4.05.2015

1) Larger Context (economics/ politics/ societal values and pressures/ government policies/ technological advances)	2) Theories/ Ways of Understanding	3) Institutional and Organizational Developments/ System	4) Teaching/ Learning Methodologies role of teacher/role of learner	5) Predominant Technologies	6)Key Authors
Commencement of Knowledge Era	Interaction Equivalency Theorem	Online learning	Connectivism	Internet	George Siemens
Demand for Knowledge personnel	Community of Inquiry	Virtual universities	Constructivism	World Wide Web	Terry Anderson
Post Industrial Era	5 stage model	Dual mode universities	Cognitive presence	Web 2.0 tools	John Dron
Internet	10 virtual learning spaces model	Blended courses	Social presence	Web & immersive conferencing	Randy Garrison

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CURRENT TRENDS (2000's....)
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1) Larger Context (economics/ politics/ societal values and pressures/ government policies/ technological advances)	2) Theories/ Ways of Understanding	3) Institutional and Organizational Developments/ System	4) Teaching/ Learning Methodologies (role of teacher/role of learner)	5) Predominant Technologies	6) Key Authors
Rise of social networks utilised by businesses and educational institutions for marketing purposes. Cleveland-Innes and Sangra (2010) describe a **competitive educational environment** where it is necessary for institutions to collaborate. Cleveland-Innes and Sangra (2010) cite the National Center for Public Policy and Higher Education report that **funding has declined** following World War II, creating a "...market-driven environment for education institutions…" (p. 230).	**Heutagogy** - Kenyon and Hase (2001) define Heutagogy as "...the study of self-determined learning…" (p. 3). **Theory of Connectivism** - Theory that describes learning in a setting that is social, complex, and Web-connected (Siemens & Conole, 2011). It also facilitates synchronous and asynchronous learning (Kropf , 2013). **Refined Theory of Transactional Distance:** using discourse analysis techniques, demonstrated more specifically how changes in dialogue, structure, and teacher/learner control	**Massive Open Online Courses (MOOCs)** - Classes offered by institutions, offering open access to all elements of the class and can include thousands of students (Skiba, 2012). Massive open online course is an online course that provides open access with unlimited participation through the Internet. It provides interactive user forums that support community interactions among all. **Open Educational Resources (OERs) -**	**Self-Directed Learning** - Cleveland-Innes and Sangra (2010) see students in higher education environments taking on roles that are "...self-directed, continuous, active…" (p. 233). **Double Loop Learning** - Blaschke (2012) describes learners engaging in this action "... consider the problem and the resulting action and outcomes, in addition to reflecting upon the	**Cloud Computing** - Ice (2010) describes cloud computing as applications for productivity that afford users the opportunity to engage in "...desktop-based tasks on lightweight devices…" (p. 159) **Web-connected mobile devices** such as: Tablets, smartphones, laptops, and other devices.	Anderson, T. Peters, O. Hase, S. Kenyon, C. Siemens, G. Downes, S. Poggeler, F. Jonassen, D. Blaschke, L. Kropf, D. C. Garrison, D. R.

Employers seek candidates with **technological competencies**. Oblinger (as cited in Cleveland-Innes and Sangra, 2010) notes students must be technologically competent to be able to graduate and to compete after graduation. Move by traditional institutions to blended and online learning. **Utilization of Information and Communication Technologies** "African countries, like countries everywhere, are looking to the educational possibilities offered by distance education and Information and Communication Technologies (ICTs) as a way of expanding and improving the systems" (Oladejo & Gesinde, 2014: 134). **Evolving Student Body** - Cleveland-Innes and Sangra (2010) discuss the evolving characteristics of students as	affected changes in the others. (Shinkle, 2001), (Zhang, 2003), (Moore & Kearsley, 2012). **Peeragogy**: "Peeragogy is a collection of techniques for collaborative learning and collaborative work. By learning how to "work smart" together, we hope to leave the world in a better state than it was when we arrived' (Rheingold, 2014). **Metaliteracy MOOC**: "... is a comprehensive open learning model that reimagines information literacy for social media environments and online communities in the 21st century. Metaliteracy offers a unified framework that promotes critical thinking, participatory learning, and metacognitive reflection as interrelated and ongoing collaborative practices" (Mackey and Jacobson, 2011:1).	Items for educational pursuits that anyone can access, utilize, and refashion (Downes, 2011). **Emerging Technologies:** Are experiencing the same scrutiny that "now established" technologies faced when they were "emerging." It is important to look at the theories of old technology to understand how new technologies can be applied in DE (Anderson, 2010). **Virtual Schools:** complementary online education.The African Virtual University (AVU) founded as a World Bank project in 1997, developed to a Pan African Intergovernmental Organization in 2003	problem-solving process and how it influences the learner's own beliefs and actions…" (p. 59). **Collaborative learning** - Muuro, Wagacha, Oboko, and Kihoro (2014) cite the expansion of the WWW, social interaction on the Internet, and the advent of Web 2.0 platforms as key components in the increased efficacy and employment of collaborative environments in distance education. **Autonomous Learning** - Peters (2001) notes that the "...greatest impression made by the digital-learning environment...is its enabling of	**Rich Internet Application (RIA)** - Ice (2010) highlights applications with "...robust characteristics of desktop application…" and are transmitted via "...Web browser plug-ins or...sandboxes or virtual machines" p. 159). (**Web 2.0 Platforms include:** **Chatrooms** Provides opportunity for student-student, and student-teacher educational exchanges	Cleveland-Innes Sangra

well as the increases in enrollments of older students. Advances in technologies used to connect by researchers, students and academics. Rise of new technology requirements and learners' attention on grades and assessments. Era of "networked generation": Millenials (or digital natives" but also occupied by "digital immigrants." Space and Time – not really constraints to teaching and learning. Students are looking for courses that meet their schedules and circumstances Developing people who are able to cope with the changing world Greater need to change the way people learn by employing	**Metaliteracy Model** is based on producing, sharing, using and incorporating information that are generated from OERs, social media, mobile and online sources. **Community of Inquiry (CoI)** - Educational experience that result from social, cognitive and teaching presence; all three are necessary for learning and when combined result in learning. In DE, the value of Web 2.0 technologies to eLearning is tied to CoI. Web 2.0 tool such as wiki or blog can be viewed as a means of facilitating learning and knowledge. (Swan, K. 2010. In Cleveland-Innes & Garrison (2010). **Constructivism-** construction of knowledge depending on backgrounds and collective understandings. Theory of Dialog (Poggeler)	with 27- country members. Offers online degree program. (AVU, 1012). Rise of specialist institutions / Employer training institutions	autonomous learning…" (p. 145). **Social Media as tools for Teaching and Learning:** Educational institutions use social media such as Twitter, Facebook, Wikis to collaborate, teach and connect with students across continents, Example, UMUC.Edu. **Twitter** is popular with higher education students who use it to connect and collaborate with teachers, students and peers in both asynchronous and synchronous forms. **Flipped Classroom**: Online/Asynchronous Learning: Clark, 2011--Learning takes place anytime,	**Blogs** Interactive forum for students/teachers/groups to review, collaborate and learn--a Web 2.0 tool. Yerrick (2013) cites examples as Blackboard, WordPress, and Blogspot. **Twitter** A social network of collaboration, discussions and interactions for teachers, subject experts and students. **Wikis** Also termed a social network but is regarded as an a web application which allows users to	

use of **emerging technologies** Transformation of Higher Education Institutions from being primary providers of traditional learning to being facilitators of learning environments. "Aderinoye, Siaciwena, and Wright (2009) corroborated Leary & Berge's (2007) position, maintaining that Africa lacks high-speed Internet infrastructure, access to computers, and human resources with the expertise and knowledge, to implement and support hi-tech delivery methods effectively. In Africa, most of the advanced form of technology is not a viable medium for most ODL learners as many of them still live in very remote areas."	Situated Learning Theory (Jonassen, et al) Theories for Autonomous Learning and Skills for Virtual Environments (in Peters, 2010) **Complexity theory**- learner's ability to articulate and achieve defined goals. **Net-aware theories**- provides co-operative ways of learning.		anywhere with learner's pace. **Community-Centered Learning:** Community-centered learning environment support two types of learning: 1. the social construction of knowledge for small communities, and 2. larger student community, society and culture. Both levels thrive on the theory of constructivism. (Cleveland-Innes & Garrison, 2010, p. 120). **Dialogical Learning** - Peters (2001) describes several aspects of this concept including students interacting with: faculty, staff, other students, and other entities connected to the	interact, collaborate and exchange information or ideas. Yerrick (2013) offers PBWorks, EdWiki, and Moodle as examples of hosts. **Facebook** An Online social network services launched in 2004 that provides users a forum to exchange messages, photos, videos as well as post any kind of material for users to view and review. **Google Docs** is a productivity application that allows for collaborative work from a	

			distance education process. **Structured Learning** - Peters (2001) indicates that distance education institutions currently employ courses and programs that are planned and linear. **Blended Learning** - Garrison and Vaughan (in Vaughan, 2010) define as the combination of "...face-to-face and online approaches and technologies" (p. 165). Vaughan (2010) touts benefits such as flexibility, improved communication, and better student outcomes. Video/Audio Conferencing Digital Textbook	variety of Web-accessible devices. **Open Educational Resources (OERs) -** Items for educational pursuits that anyone can access, utilize, and refashion (Downes, 2011). **YouTube and Vimeo** - Web 2.0 platforms that allows user to post, view, and discuss video content. **iTunes U** - Yerrick (2013) describes as a service that hosts podcasts creation and dissemination, RSS feeds, and rich media.	

			Teacher / Lecturer is the guide and facilitator Culture of sharing among institutions	Skype Blogs (Weblogs) Wikis Podcasts (vlogsvideo,or audioblogs if only audio) Imeem™, Writeboard™, InstaColl™ M-learning M-libraries	

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