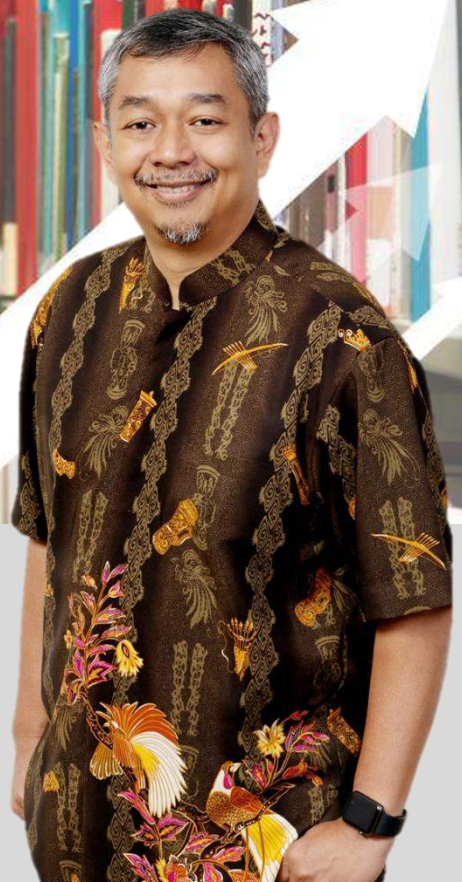
PEMANFAATAN OER DALAM KEGIATAN PEMBELAJARAN
“Peran Transformasional Perpustakaan di Era Digital”



Prof. Richardus Eko Indrajit o indrajit@post.harvard.edu o http://Eko-Indrajit.id

PANTUN PEMBUKA

“Bunga mawar, kembang melati
Indah menawan, mekar berseri
Waktu berjalan tiada berhenti
Ijinkan hamba memulai presentasi”

LINTAS GENERASI DALAM SATU DUNIA

Talking a different language

Formative experiences	**Maturists** (pre-1945)	**Baby boomers** (1945-1960)	**Generation X** (1961-1980)	**Generation Y** (1981-1995)	**Generation Z** (Born after 1995)
	Wartime rationing Rock'n'roll Nuclear families Defined gender roles - particularly for women	Cold War 'Swinging Sixties' Moon landings Youth culture Woodstock Family-orientated	Fall of Berlin Wall Reagan/Gorbachev/ Thatcherism Live Aid Early mobile technology Divorce rate rises	9/11 terrorists attacks Social media Invasion of Iraq Reality TV Google Earth	Economic downturn Global warming Mobile devices Cloud computing Wiki-leaks
Percentage in UK workforce	3%	33%	35%	29%	Employed in either part-time jobs or apprenticeships
Attitude toward career	Jobs for life	Organisational - careers are defined by employees	"Portfolio" careers - loyal to profession, not to employer	Digital entrepreneurs - work "with" organisations	Multitaskers - will move seamlessly between organisations and "pop-up" businesses
Signature product	Automobile	Television	Personal computer	Tablet/smartphone	Google glass, 3-D printing
Communication media	Formal letter	Telephone	E-mail and text message	Text or social media	Hand-held communication devices
Preference when making financial decisions	Face-to-face meetings	Face-to-face ideally but increasingly will go online	Online - would prefer face-to-face if time permitting	Face-to-face	Solutions will be digitally crowd-sourced

Source: Barclays, University of Liverpool

Dunia berkembang secara dinamis dimana generasi demi generasi tumbuh saling berdampingan.

MANUSIA SEBAGAI INSAN PEMBELAJAR

BELAJAR

PEMBELAJARAN

coursera
UDACITY
Learn. Think. Do.
edX
canvas
NETWORK
NovoED
iversity
OPEN
2 STUDY
Future
Learn

Dalam kesehariannya, manusia melakukan proses BELAJAR dan PEMBELAJARAN secara mandiri.

PEMBELAJARAN SEBAGAI PROSES TERENCANA

STRATEGI PEMBELAJARAN

MEDIA PEMBELAJARAN

BAHAN PEMBELAJARAN

Pembelajaran dilakuan melalui program pendidikan formal yang telah dirancang sedemikian rupa.

KARAKTERISTIK BAHAN PEMBELAJARAN

BY **DEVELOPMENT**

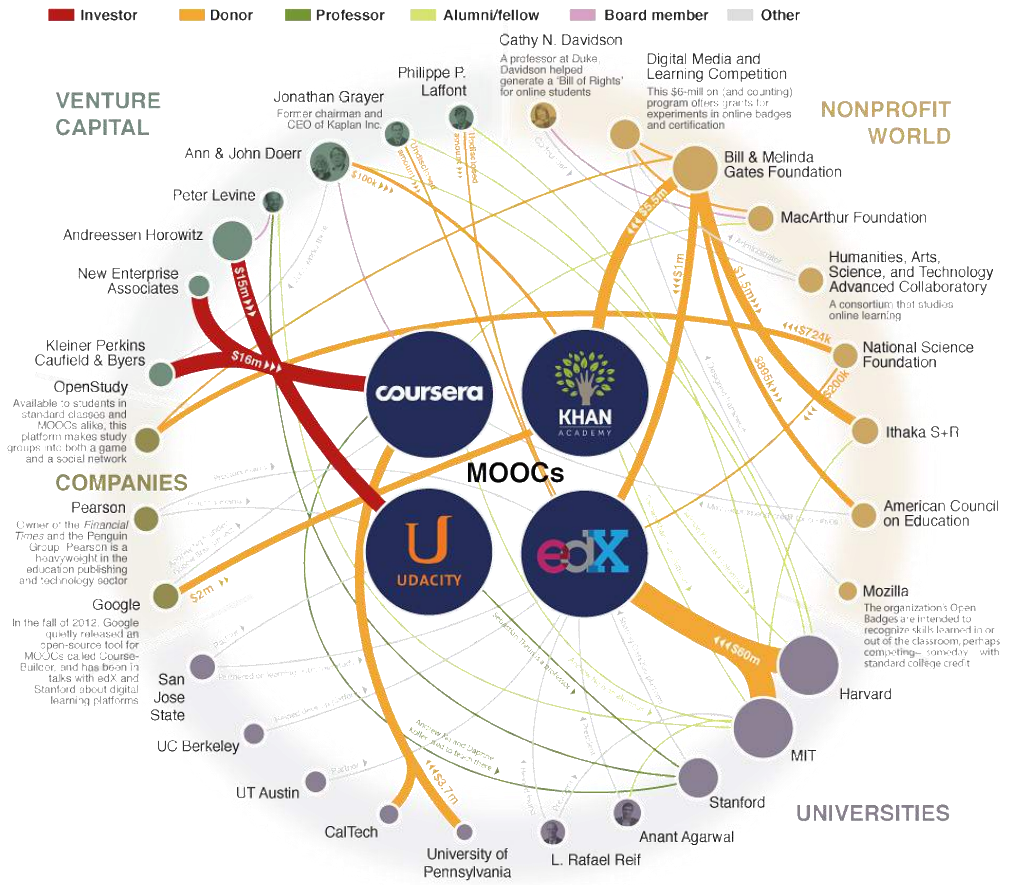
BY **UTILISATION**

Perancang proses pembelajaran dapat memanfaatkan berbagai sumber belajar yang tersedia.

RAGAM SUMBER BAHAN PEMBELAJARAN DIGITAL

OPEN EDUCATIONAL RESOURCES

massive open online courses MOOC



Saat ini beragam bahan pembelajaran bermutu dihasilkan oleh lembaga-lembaga terkemuka.

DEFINISI OPEN EDUCATIONAL RESOURCES

Wikipedia Definition on OER:

- Open Educational Resources (OER) are **freely accessible**, usually **openly licensed** documents and media that are useful for teaching, learning, educational, assessment and research purposes.

- Although some people consider the use of an **open format** to be an essential characteristic of OER, this is not a universally acknowledged requirement.

- The development and promotion of open educational resources is often motivated by a desire to curb the **commodification of knowledge** and provide an alternate or **enhanced educational** paradigm.

OPEN EDUCATIONAL RESOURCES

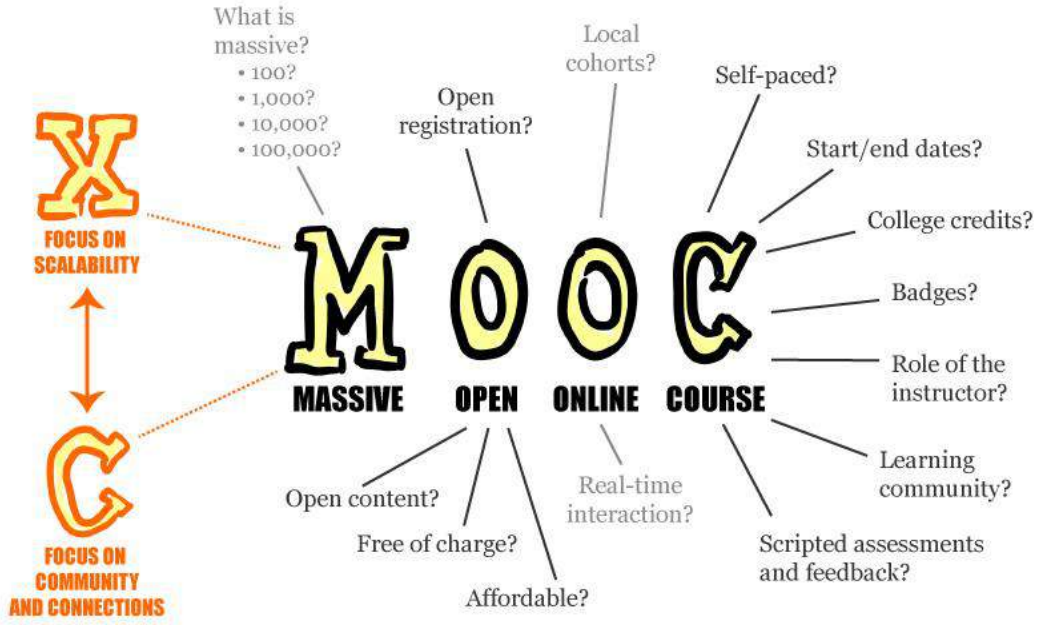
creative commons

OER COMMONS
OPEN EDUCATIONAL RESOURCES

Paradigma OER berasal dari sejumlah pemikiran dan pertimbangan komunitas pendidik.

MOOC SEBAGAI CONTOH OER DI PERGURUAN TINGGI

A **massive open online course** (**MOOC** /muːk/) is an online course aimed at unlimited participation and open access via the web. In addition to traditional course materials such as filmed lectures, readings, and problem sets, many MOOCs provide interactive user forums to support community interactions among students, professors, and teaching assistants (TAs). MOOCs are a recent and widely researched development in distance education which were first introduced in 2006 and emerged as a popular mode of learning in 2012.



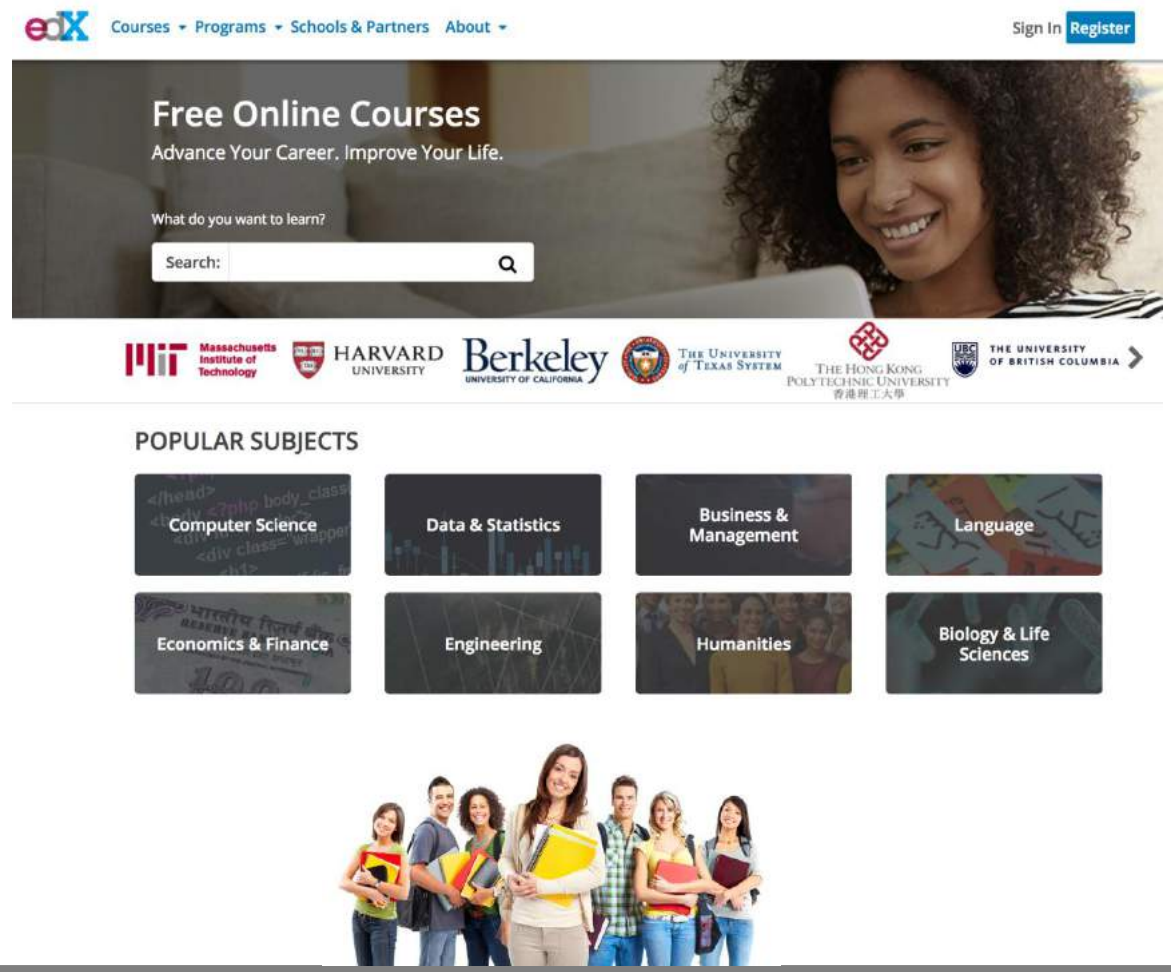
Paradigma OER berasal dari sejumlah pemikiran dan pertimbangan komunitas pendidik.

MIT DAN HARVARD MEMULAI INISIATIF OER DUNIA

https://www.edx.org/

Access 1600 free online courses from 100+ leading institutions including Harvard, MIT, UC Berkeley, Microsoft, and more.

Join 12 million members.



Jutaan pembelajar di dunia memperoleh akses terhadap pendidikan bermutu secara terjangkau.

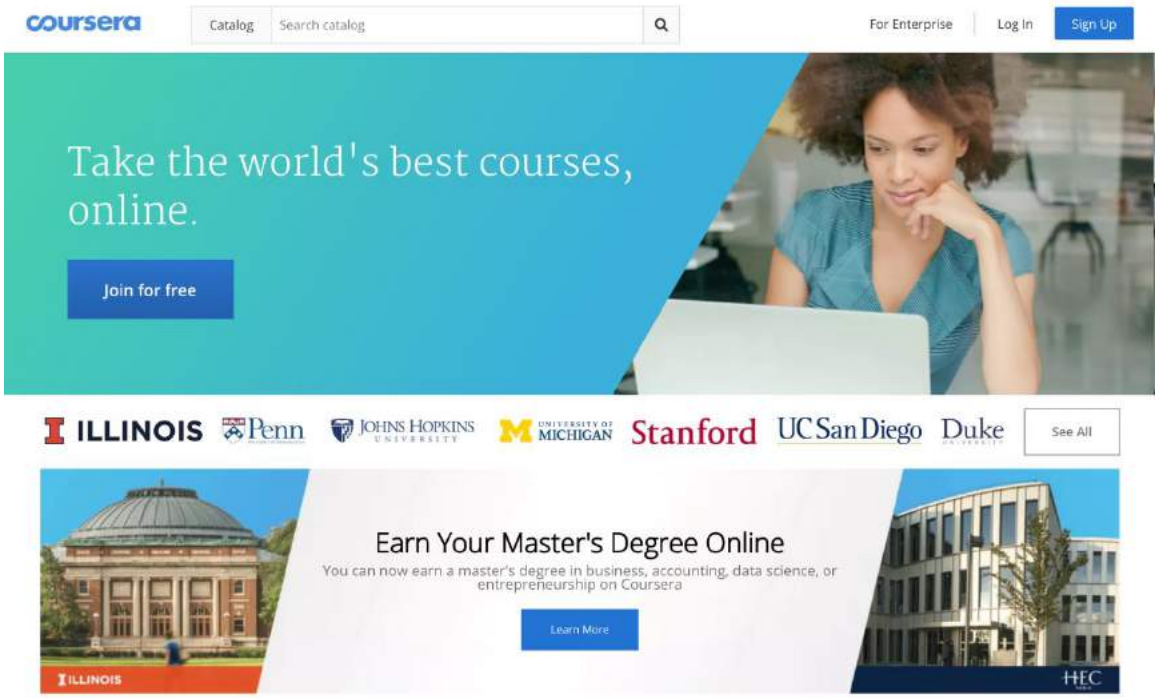
STANDFORD DAN YALE BERKOLABORASI LEBIH LANJUT

coursera

https://www.coursera.org/

2000+ courses from schools like Stanford and Yale - no application required.

Build career skills in data science, computer science, business, and more.



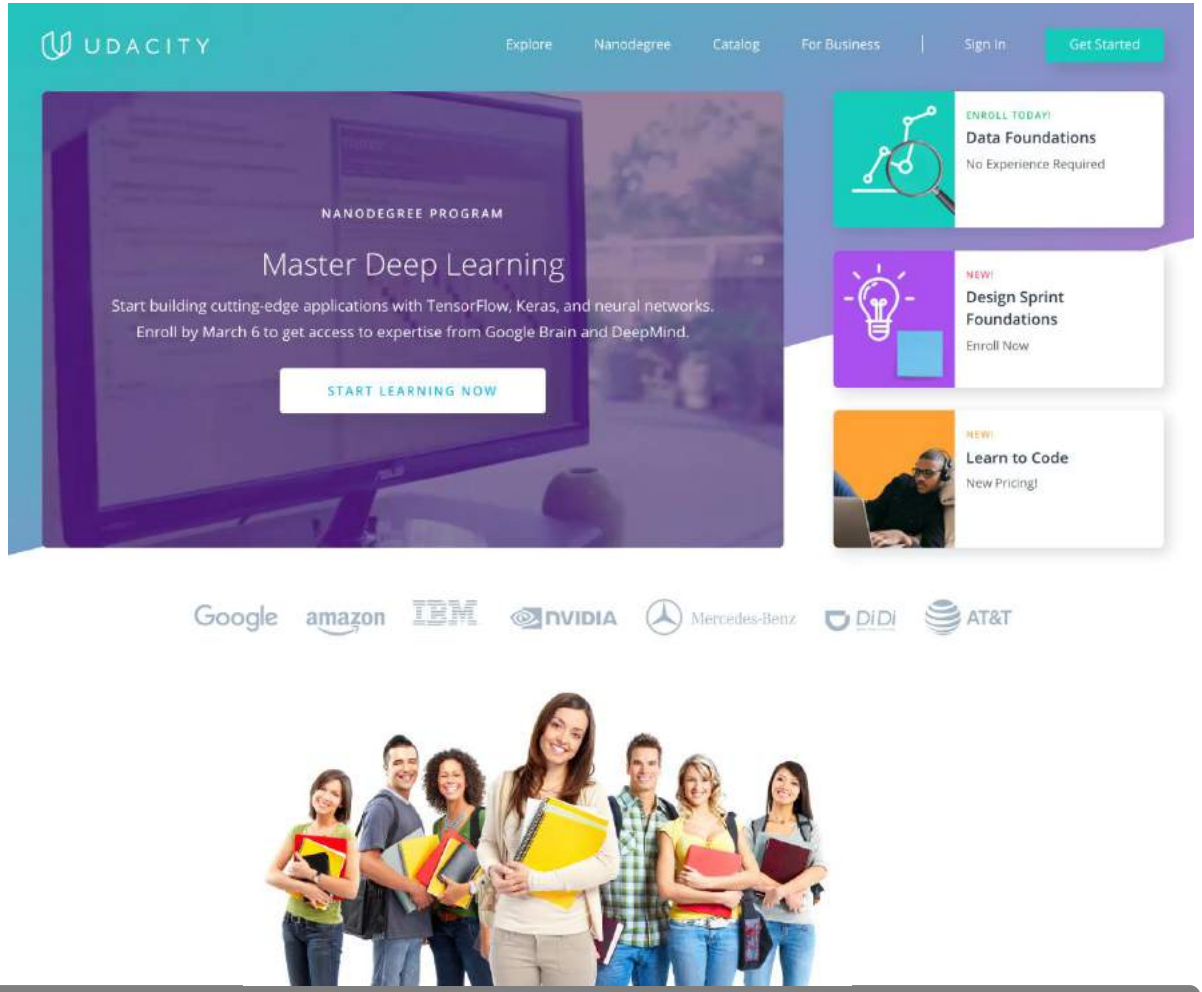
Dalam ekosistem OER dimungkinkan pula ditawarkan program gelar akdemik formal kelasa dunia.

INDUSTRI TIDAK MAU KALAU UNTUK BERBAGAI ILMU

UDACITY

https://www.udacity.com/

Join Udacity to learn the latest in Deep Learning, Machine Learning, Web Development & more, with Nanodegree programs & free online courses.



Pengetahuan dan pengalaman kolektif industri dibagikan melalui platform OER.

INDONESIA TURUT BERKONTRIBUSI MEMBANGUN OER

http://spada.ristekdikti.go.id/

SPADA Indonesia memberikan peluang bagi mahasiswa dari satu perguruan tinggi tertentu untuk dapat mengikuti suatu mata kuliah bermutu tertentu dari perguruan tinggi lain dan hasil belajarnya dapat diakui sama oleh perguruan tinggi dimana mahasiswa tersebut terdaftar.

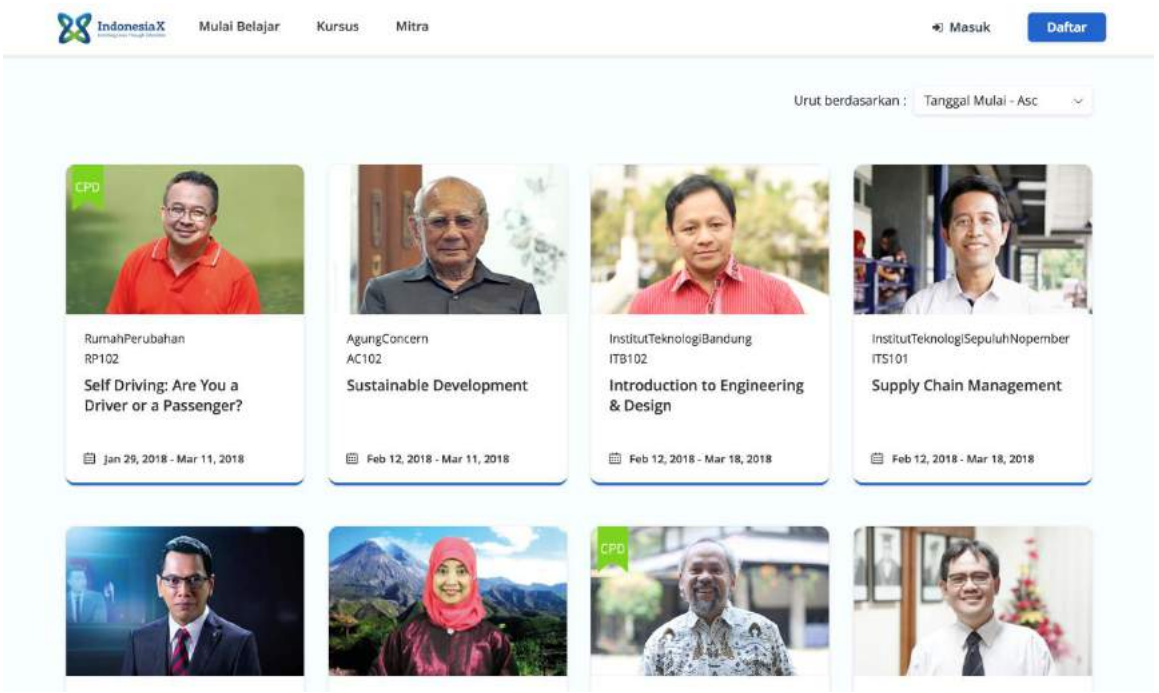
Pemerintah memberikan dukungan penuh bagi berkembangnya OER di tanah air.

KOMUNITAS PEMBELAJAR TURUT SERTA MERAMAIKAN OER

IndonesiaX
Enriching Lives Through Education

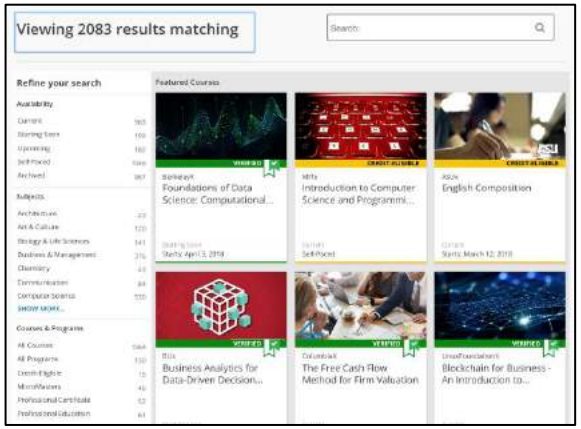
https://www.indonesiax.co.id/

Kursus yang ditawarkan berasal dari universitas peringkat tertinggi di Indonesia dan perusahaan terbaik

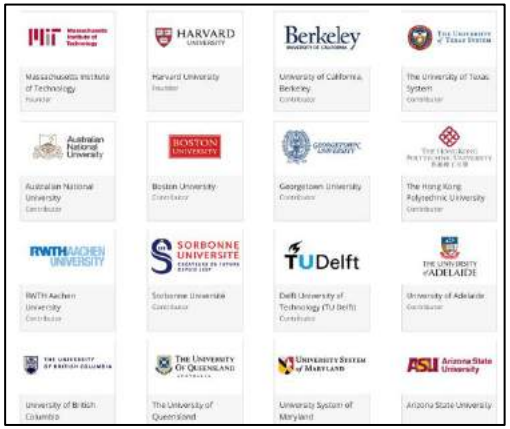


Belajar dari para profesional merupakan pengalaman yang tak ternilai harganya.

OER DIGEMARI KARENA MEMILIKI MANFAAT NYATA

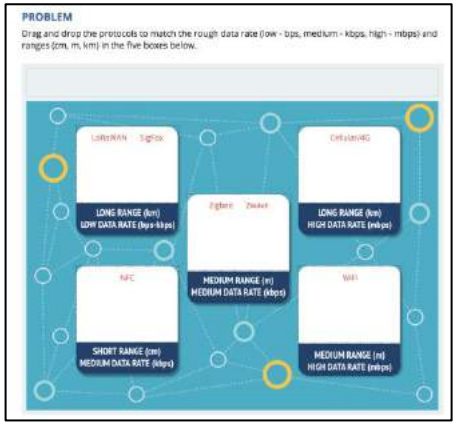


KAYA KONTEN TERMUTAKHIR



DARI LEMBAGA TERKEMUKA

OLEH AHLI KELAS DUNIA



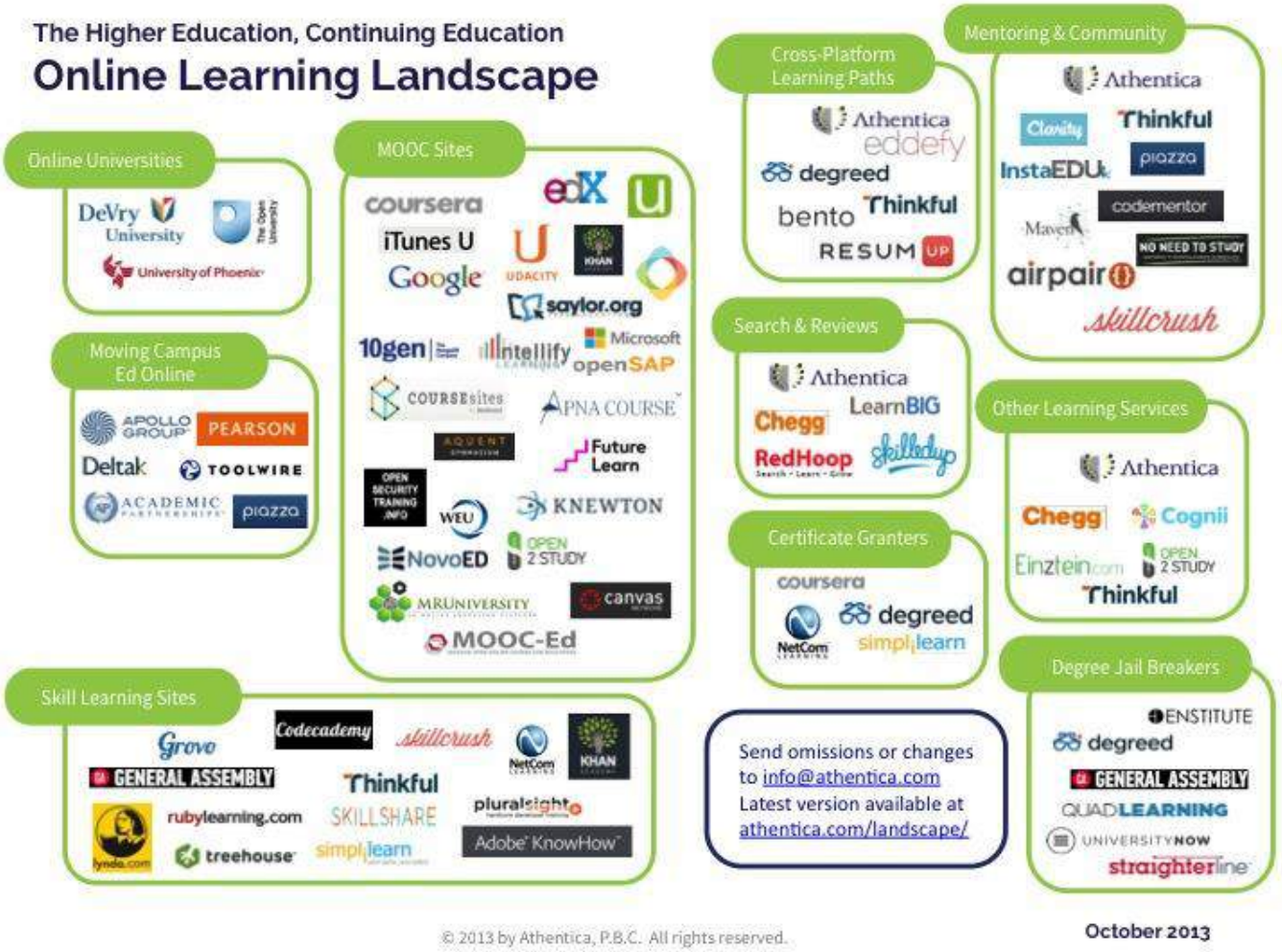
PROSES BELAJAR MENARIK

BEBAS AKSES SECARA MANDIRI

DIAKUI SECARA GLOBAL

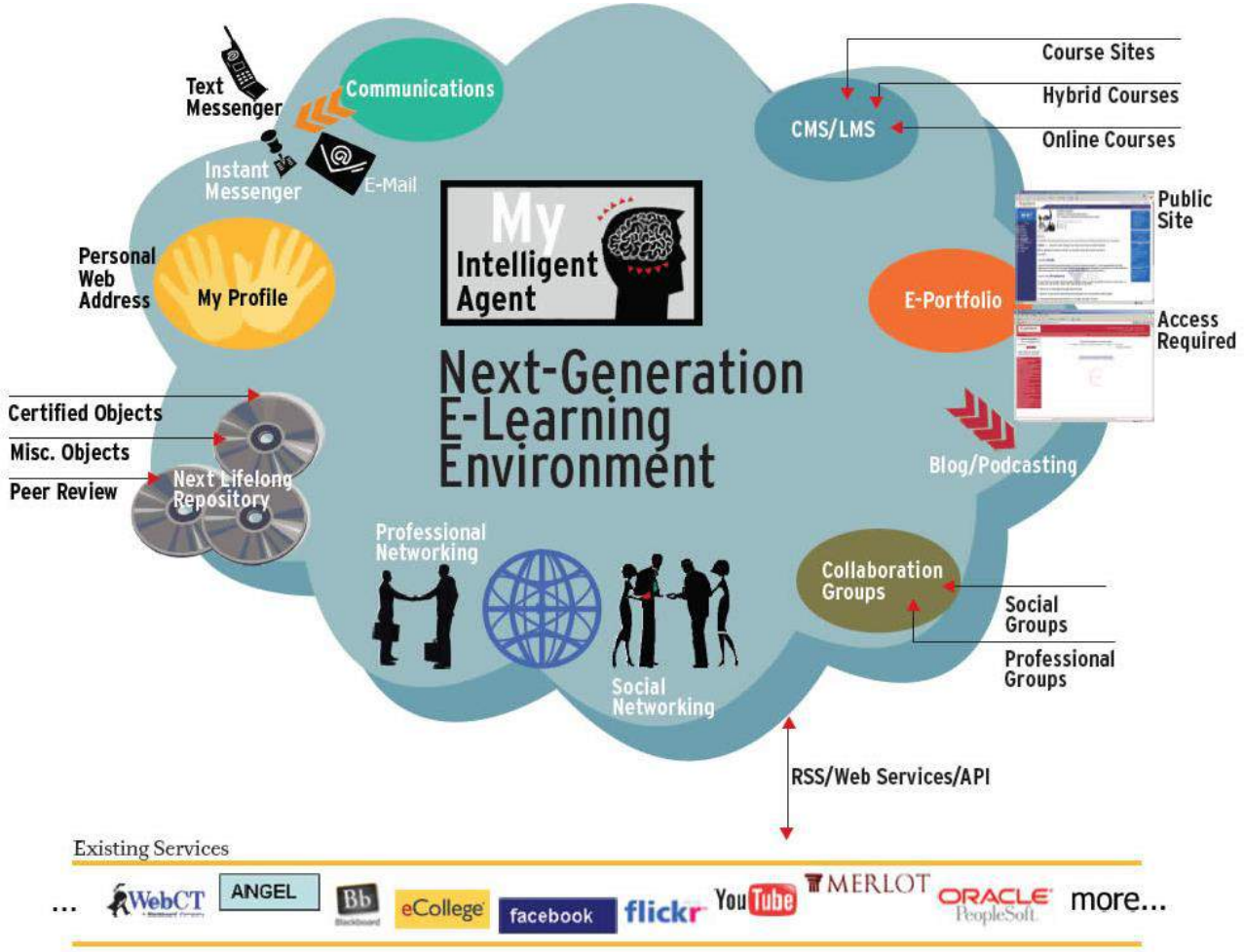
Pengguna, penyedia, dan penyelenggara OER tumbuh pesat secara eksponensial.

JEJARING EKOSISTEM OER DALAM ONLINE LEARNING



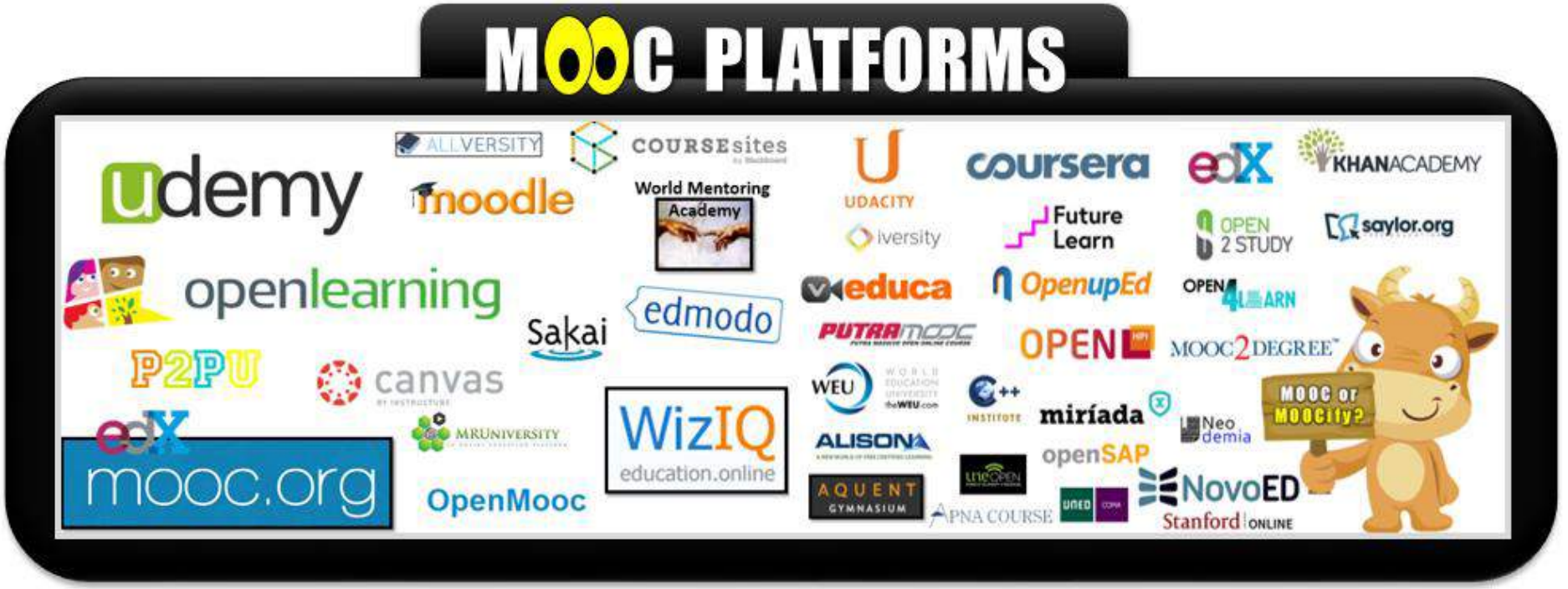
Dalam pembelajaran daring, keberadaan OER menjadi kunci sukses keberhasilan pelaksanaannya.

MODEL PEMBELAJARAN MASA DEPAN (INDUSTRY 4.0)



Seluruh manusia dan entitas fisik merupakan sumber belajar langsung yang paling relevan.

ANEKA RAGAM PLATFORM MOOC



Teknologi penunjang MOOC terbuka secara bebas dan gratis.

SYARAT MENGEMBANGKAN OER DAN MOOC BERKUALITAS

AHLI DESAIN INSTRUKSIONAL

AHLI DESAIN MULTIMEDIA

AHLI BAHASA

AHLI INSTRUMEN EVALUASI

AHLI TEKNOLOGI INFORMASI

AHLI GRAFIS

AHLI BISNIS/MANAJEMEN

AHLI HUKUM

KNOWLEDGE PRODUCTION HOUSE

Perguruan tinggi membutuhkan pusat pengembangan dan diseminasi OER yang berkualitas.

PERPUSTAKAAN SEBAGAI PUSAT PENGEMBANG OER

- **Knowledge object sebagai atom lengkap**
- **Hub netral bertemunya para scholars**
- **Kondusif sebagai tempat produksi OER**
- **Mudah diakses oleh komunitas pembelajar**
- **Diseminasi cepat dan masif (viral)**
- **Langsung diujicobakan (on-the-fly)**
- **Akses terbuka bagi pubik via multi kanal**
- **SDM kompeten dalam mengelola ilmu**
- **Produk otomatis menambah koleksi**

Perpustakaan memiliki kemampuan dan kapabilitas sebagai COE pengembangan OER bermutu.

PERPUSTAKAAN SEBAGAI PUSAT PENGEMBANG OER

- **The Community College Consortium for Open Educational Resources** - CCCOER is a joint effort by the **OER Center for California,** Foothill-De Anza Community College District, the League for Innovation in the Community College and many other community colleges and university partners to develop and use open educational resources (OER) and especially open textbooks in community college courses.
- **OpenStax** is a non-profit digital ecosystem serving millions of users per month in the delivery of free educational content to improve learning outcomes.
- **Free Online Course Materials** is a California State University MERLOT collection of over 35,000 open course materials.
- **MIT OpenCourseWare (OCW)** is a web-based publication of virtually all MIT course content. OCW is open and available to the world and is a permanent MIT activity.
- **The Open Course Library**, from Washington State University, is a collection of expertly developed educational materials – including textbooks, syllabi, course activities, readings, and assessments – for 81 high-enrollment college courses. 42 courses have been completed so far, providing faculty with a high-quality, affordable option that will cost students no more than $30 for textbooks.
- **OER Commons** was created as a network for teaching and learning materials, the web site offers engagement with resources in the form of social bookmarking, tagging, rating, and reviewing.
- **The Open Education Resource (OER) Foundation** is an independent, not-for-profit organization that provides leadership, networking and support for educators and educational institutions to achieve their objectives through Open Education.
- **WikiEducator** is a community project working collaboratively with the Free Culture Movement towards a free version of the education curriculum by 2015. Driven by the learning for development agenda WikiEducator is developing free content for use in schools, polytechnics, universities, vocational education institutions and informal education settings.
- **The World Digital Library (WDL)** makes available on the Internet, free of charge and in multilingual format, significant primary materials from countries and cultures around the world.

Perpustakaan memiliki peranan penting dan krusial dalam ekosistem OER dunia.

DISKURSUS PERANAN PERPUSTAKAAN DI ERA DIGITAL

The Importance Of Library Today And Into Tomorrow

By *Maria Lorena Lehman* | Founder — Sensing Architecture ® Academy

What's a library in the digital age?

Tommy Jay

Architects Wright & Wright consider two Oxford projects and what students want from libraries in a digital age

Libraries of the future are going to change in some unexpected ways

Chris Weller, Business Insider US

August 24, 2016

Do We Need Libraries?

Steve Denning, CONTRIBUTOR

I write about radical management, leadership, innovation & narrative. **FULL BIO**

Opinions expressed by Forbes Contributors are their own.

The Future, Today

Award-winning designers discuss the library of the future

By Phil Morehart | February 26, 2015

INNOVATIVE DESIGN

This Is the Future of Libraries in the Digital Age

With the cyberage in full swing, this is how smart design is keeping demand for the printed word alive

TEXT BY KIM VELSEY · Posted June 27, 2017

Adalah suatu kenischayaan bahwa perpustakaan harus mengubah posisi dan peranannya.

PERPUSTAKAAN DI MASA KINI DAN MENDATANG

> “Libraries are becoming more open and light-filled and, in turn, becoming a less formal place for groups to come together and meet.”

Brian Lee, Skidmore, Owings, and Merrill

> “Libraries are no longer single-purpose repositories of books dedicated to quiet study. They have become dynamic hubs.”

Joel Sanders, Joel Sanders Architect

Perpustakaan yang bertahan adalah yang mau belajar dan beradaptasi dengan perubahan zaman.

TRANSFORMASI PERPUSTAKAAN

Peran dan Fungsi Perpustakaan Konvensional

+

Implementasi Efektif

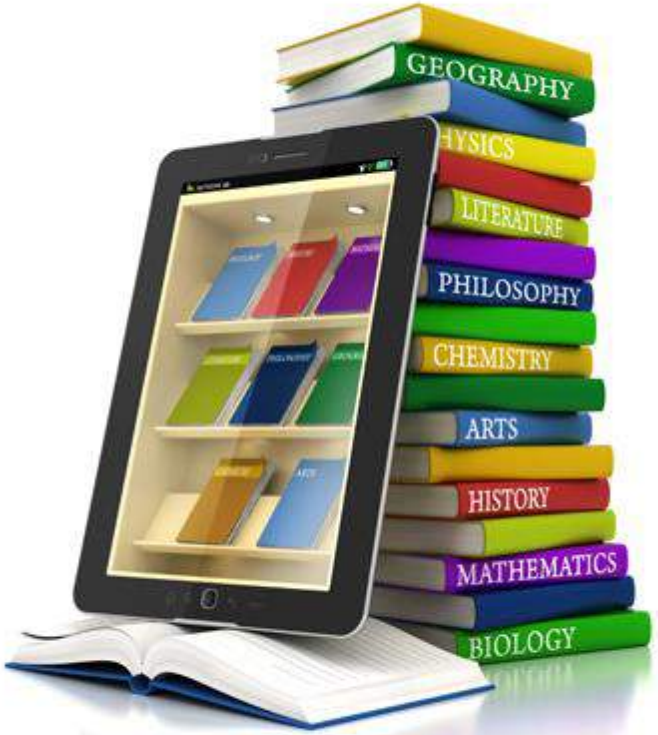
Teknologi Informasi dan Komunikasi

=

Transformasi Strategis

Perpustakaan harus mampu berubah menyesuaikan diri dengan dinamika kebutuhan.

PEMICU UTAMA PERUBAHAN



- Karena: Teknologi penciptaan, penyimpanan, penggabungan, pengolahan, dan pendistribusian data/informasi/pengetahuan secara elektronik dapat dilakukan tanpa mengenal batasan ruang dan waktu (informasi dapat diperoleh kapan saja, oleh siapa saja, dari lokasi mana saja 24 jam sehari dan 7 hari seminggu)

- Maka: Proses dan aktivitas interaksi antara manusia dan perpustakaan semakin hari menjadi semakin cepat, murah, dan fleksibel

- Sehingga: Secara cepat namun pasti terjadi proses transformasi peranan dan fungsi perpustakaan dalam kehidupan manusia akibat perkembangan teknologi tersebut.

Fenomena disruptif turut pula berpengaruh terhadap peranan perpustakaan di berbagai negara.

TRANSFORMASI STRATEGIS

• Pusat koleksi buku dan referensi	→ sumber ilmu pengetahuan terkini
• Bangunan besar megah	→ jaringan dunia maya
• Tempat studi nyaman	→ komunitas masyarakat berinteraksi
• Layanan simpan-pinjam pustaka	→ infrastruktur individu
• Kebutuhan sesekali	→ gaya hidup masyarakat moderen
• Pustaka sebagai obyek bisu	→ akses memori secara interaktif
• Entiti berdiri sendiri	→ jejarik pusat unggulan
• Aktivitas tanpa konteks	→ proses aliansi konten dan konteks
• Akses konvensional manual	→ berbasis teknologi informasi
• Media tunggal	→ ragam bentuk representasi multi media
• Keterbatasan entitas	→ sumber daya elektronik tanpa batas
• Proses kerja serial	→ aktivitas simultan tanpa henti
• Waktu interaksi terbatas	→ real-time dan online 24/7
• Sistem tertutup	→ mesin cerdas yang belajar

Paradigma perubahan dalam dunia perpustakaan menjadi tantangan serius yang perlu dipikirkan.

ARSITEKTUR PERPUSTAKAAN MODEREN

Perubahan harus dilakukan secara sistemik dan holistik agar memberikan dampak signifikan.

RAGAM VISI DAN MISI

- Pusat informasi dan ilmu pengetahuan terkini dengan ruang gerak dan jangkauan tak terbatas
- Komunitas masyarakat berbasis informasi yang secara sadar dan aktif berinteraksi untuk mengembangkan pengetahuan
- Entitas terpenting dari infrastruktur pembelajaran tanpa henti (seumur hidup) yang harus dimiliki setiap individu
- Memori sempurna peradaban manusia yang dihubungkan dengan pusat-pusat syaraf pengetahuan di berbagai belahan dunia
- Bursa pengetahuan dan layanan ilmu yang tersedia bagi komunitas pembelajar

Visi dan misi yang dicanangkan oleh perpustakaan moderen memperlhatkan perbedaan mencolok.

HARAPAN STAKEHOLDER PEMBELAJAR

- Pengetahuan merupakan kebutuhan sehari-hari, sehingga harus tersedia secara cepat, mudah, dan murah
- Pengetahuan harus dapat diakses secara fleksibel (melalui handphone, komputer, tablet, personal digital assistant, dan lain-lain) dan disimpan dalam berbagai bentuk sesuai keinginan dan kebutuhan (teks, audio, gambar, video, dan lain-lain)
- Informasi sebagai bahan mentah pengetahuan di internet tidak terseleksi dengan baik, sehingga harus ada sebuah lembaga atau entitas alternatif yang dapat membantu menyeleksinya
- Entitas tersebut (perpustakaan) haruslah menyediakan beragam layanan terkait dengan konteks kebutuhan masyarakat pengguna pengetahuan terkait – sesuai dengan ragam peranan mereka

Fungsi perpustakaan harus relevan dengan kebutuhan masyarakat moderen.

CONTOH 1: AUGMENTED REALITY

CONTOH 2: DIGITAL PAPER

CONTOH 3: RFID

CONTOH 4: MOBILE DIGITAL LIBRARY

CONTOH 5: LIBRARY ON THE WALL

CONTOH 6: LIBRARY ON TABLET

CONTOH 7: HYBRID LIBRARY DESIGN

CONTOH 8: VIRTUAL LIBRARY

CONTOH 9: LIBRARY IN A GAME

CONTOH 10: VIRTUAL REALITY

LIMA PERTANYAAN MENDASAR BAGI PERPUSTAKAAN

Do We Need Libraries?

Steve Denning, CONTRIBUTOR

I write about radical management, leadership, innovation & narrative. **FULL BIO**

Opinions expressed by Forbes Contributors are their own.

1. How can we delight our users and customers?
2. How can we manage the library to enable continuous innovation?
3. What will make things better, faster, cheaper, more mobile, more convenient or more personalized for our users?
4. What needs could libraries meet that users haven't yet even thought of?
5. What are the things that libraries are currently doing that users already love?

Perpustakaan harus berani menelurkan gagasan terbaiknya pagi para pelanggan dan komunitas.

PERPUSTAKAAN DI MASA KINI DAN MENDATANG

A library without books was once unthinkable. Now it seems almost inevitable.

Libraries will only survive if the communities they serve want and need them to.

Perpustakaan yang bertahan adalah yang mau belajar dan beradaptasi dengan perubahan zaman.

PANTUN PENUTUP

“Barat ke timur, selatan ke utara
Alam membentang, sungguh memikat
Cita-cita pustakawan maju bersama
Nischaya terwujud dalam waktu cepat”

TERIMA KASIH

Diskusi dan Tanya Jawab