Proceedings of the International Mobile Learning Festival 2016:

Mobile Learning, Emerging Learning Design and Learning 2.0

Editors

Daniel Churchill, The University of Hong Kong, Hong Kong SAR China
Michele P. Notari , PHBern, University of Teacher Education, Berne, Switzerland

International Mobile Learning Festival 2016, 27-28 May, Bangkok, Thailand

CVHCD

Utilization of Online Radio for Learning Media. Case study at Universitas Terbuka

Siti Samsiyah[28], Lilik Aslichati[29]

Abstract

Technology has created a revolution in the various sectors such as health, trade, government, and education as well. In educational sector, the use of educational technology will improve the quality of education, the amount of enrolment, and the ease of learners to follow the whole process of learning. Faced with the geographical conditions of the area which consists of various islands and diverse terrain textures, Indonesia requires innovation in the educational process. A qualitative research was conducted at Universitas Terbuka to explore a format design of online radio as one of learning media that can be followed by the students all over Indonesia. Collecting data using interviews with IT experts, Instructional design expert, literature studies and other supporting documents. The results showed that online radio has a highly flexible medium for students as well as tutors. The tutor has a chance to improve their learning material by sharing and discussing with another tutor based on their learning experiences. The students have a chance to learn a learning material from various learning materials given by another tutor from another tutorial classes, so that they can improve their understanding about their course materials. The students also has a chance to choose the tutorial class they like. Besides, they can communicate well with the UT's students all over Indonesia.

Keyword : online radio, learning media, disseminating of learning materials

1. Introduction

Advances in technology have revolutionized the systems and procedures of the transaction in all aspects of life. Technology through a variety of social activities, such as communication, information exchange faster scrolling. Similarly, transactions work faster and more efficiently. The advent of new communication technologies also creates changes in media, print media originally ranks first in the consumption of news / publications but is currently experiencing a shift in the print media quantity, community prefers electronic media / digital to enjoy a wide range of information including news.

In the world of education, technological advances also affect the organization of learning. Originally providing education that runs in the conventional, classroom-based and face-to-face has changed, that the transfer of science can do electronic / digital. The phenomenon of learning systems like this have been done on the various levels of education from primary school to university.

The Open University as a college long distance currently have implemented the concept of digital learning system, in which various materials learning materials accessible to students online.
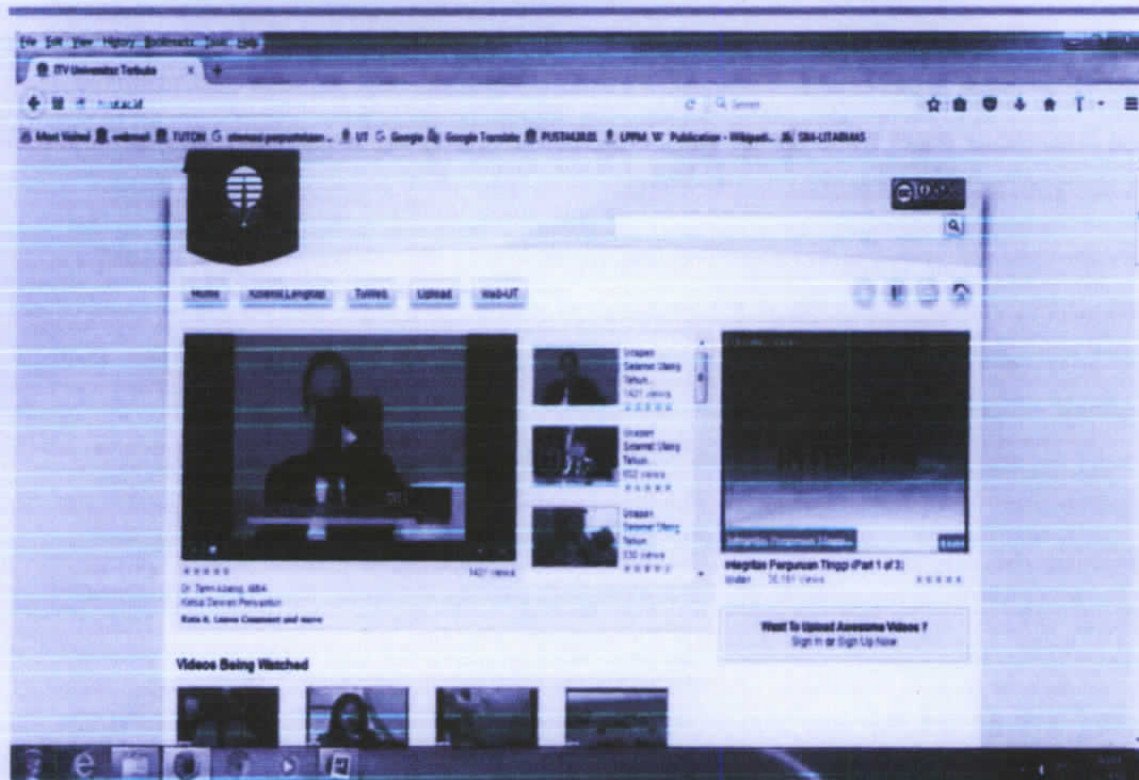
[28] *UniversitasTerbuka,Indonesia (siti@ut.ac.id)*
[29] *Universsitas Terbuka, Indonesia (lilika@ut.ac.id)*

Implementation of online learning base include online tutorials, lab cleaning. For an online tutorial activity students receive learning materials from teachers, complete the quiz, independent exercises and discussions. From the results of the survey on-line tutorial activities identified that 75% of the classes provided active student.

Distance education system used by UT using the duality system means that most systems use procedures manual, such as the implementation of tutorial-face organized only at regional offices (UPBJJ), registration for students who use the package curriculum that must be present for register at regional offices, the implementation of new student orientation, and other academic activities that can not be accommodated digitally. On the other hand academic activities are also conducted electronically as an online tutorial that applies to all of the courses that can be attended by students wherever they are, access to material the modules are packaged in a digital format that can be enjoyed on the menu in virtual reading room, teaching materials non-print consisting of multimedia-based material, dry lab, feature video, radio feature, CAI (computer assisted instruction).

Along with the development of technology, protocols for access to course materials is also changing, UT students can access the course materials more flexible. Printed teaching materials which also includes content-based audio, video, multimedia contained in the Open Source Learning (SUAKA-UT) shows that digital-based lecture material has pretty much been developed by UT and its presence is helping students understand the learning materials.

Here is the user interface facility non-print instructional materials contained video based on open learning resources (SUAKA-UT).

Facilities online learning resources that are listed in the portal UT (http://www.ut.ac.id) do not use a base-line radio / internet radio. In fact, from the media, radio has the advantage among others, (1) the coverage area, (2) the material can be repeated, (3) media prices relatively affordable, (4) for this type

of online radio is very flexible broadcast material can be adapted to the needs local students. (5) Radio as a medium has the ability to realize the education equity for the community.

Online radio or internet radio is one of the latest technological advances which have not been utilized by the UT as a medium to provide assistance to students in an effort to minimize the difficulty of accessing the learning materials contained in the portal UT UT-based video. This online radio is one of the flexible strategy can be used by UT students. The material adapted to the needs of students, as well as to directly interact with teachers.

With the characteristics of UT students are scattered bring understanding and accessing information about the concepts learned at UT are not the same. For students who are in urban areas easier access through electronic media and minimal barriers, a visit to the office of UT (Central, UPBJJ) too easily. On the other hand also found minimal UT students access to information from the UT both of side media information and location of residence to the office UT (Central, UPBJJ) far enough. Such a condition is affecting success in their learning process.

Through the medium of radio as one means of communication UT students can receive academic and administrative information. They can find out the schedule, which was held at UT's academic, administrative matters such as registration procedures, and materials are delivered via radio tutorial.

2. Research Purpose

The purpose of this study was to identify the learning radio profile and online radio design as a means of learning support for students Open University. In this paper has been prepared material to build the online radio.

3. Method

Research will be conducted with several approaches, which aspects need to easily receive distance learning material system, aspects of the availability of online radio as a means of distance learning and online aspects of the procedure for the use of radio communication media distance learning materials.

For the needs of input materials research study will be conducted the data collection to identify management especially learning material information required by UT students, characteristics and radio profiles, operating system oline radio, online radio performance and management.

Analysis in this study will be conducted using qualitative methods, to get the output in the form of recommendations online radio utilization as a resource that can be used to support distance learning system.

Research case study online radio use media as a means of learning at the Open University in view of the efforts that need to be done in order to provide equitable learning aid that is fair to all students of

UT. Outcomes of this research is the design of radio-online according to the characteristics of UT students.

4. Problems Formulation

1. What opportunities for the utilization of online radio for distance learning media?

2. How could the use of radio as a means of helping online learning for students?

5. Discussion

5.1. Function Digital Media For Higher Education Distance

Distance education has the characteristics:

- The separation of students by faculty

- The use of media as a means of student aid

- Students have the freedom to determine the course pursued

- Having a learning time flexibility

The Open University as a higher education distance very rely heavily on media as a means of giving learning aid for students. Open University (UT) media as an aid student learning consists of print media: material teaching materials (BMP) or modules, and teaching materials based electronics include teaching material non-print: lecture material-based multimedia, dray lab (virtual lab), the video feature , radio feature, cai (computer assisted instruction). This electronic-based -materi material gathered in an open learning resource database (SUAKA-UT). The source-source learning accessible to students free of charge. Meanwhile, to increase students' knowledge library reference or UT also provide learning resources that can be accessed internet technologies such as journals, research collection, -UT modules packaged electronics that can be enjoyed through the virtual reading room facility (RBV).

The use of technology in distance education has a very big role especially in the current era of technology, allows each student to learn at any time.

Research conducted by Safitri, heni and Herawati (2011) regarding the students 'perception of the use of virtual laboratory that focuses on the material practice on virtual laboratoium shown that with the use of technology that is in manifest into a virtual laboratory is able to cultivate students' interest and avoid saturation. This is because students require things that are interesting, new, and can be enjoyed when the students are learning.

Based on interviews with information technology experts, instructional design experts and student can be obtained the results as the table below.

Table 1. Interests of different stake holders

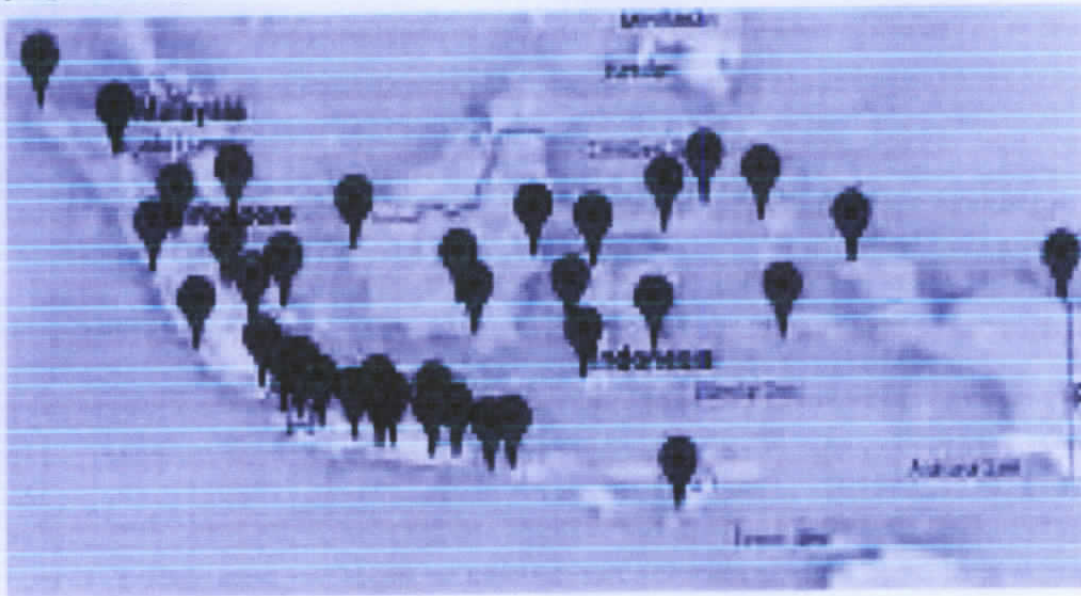| Responden	Subject	Opinion
Students	Barriers to learning	restricted access
	Needs access to learning materials	Have many choices facilities / access in the learning process
Information technology expert	Long distance lerning fasilities	UT-based learning resources in Multimedia. Among others: Internet TV, Drylab, CAI. This facility felt still less to help students in learning
	Recomendation	Radio online presence is required to prov access to learning materials selection facilities.
Instructional design experts	The advantages of online radio	Radio online delivery of material can be repeat and learning materials can be customized needs local students

Here is a matter of learning resources that are used by the UT to assist students in the learning process

Table 2. Learning resources used by UT to assist students learning process

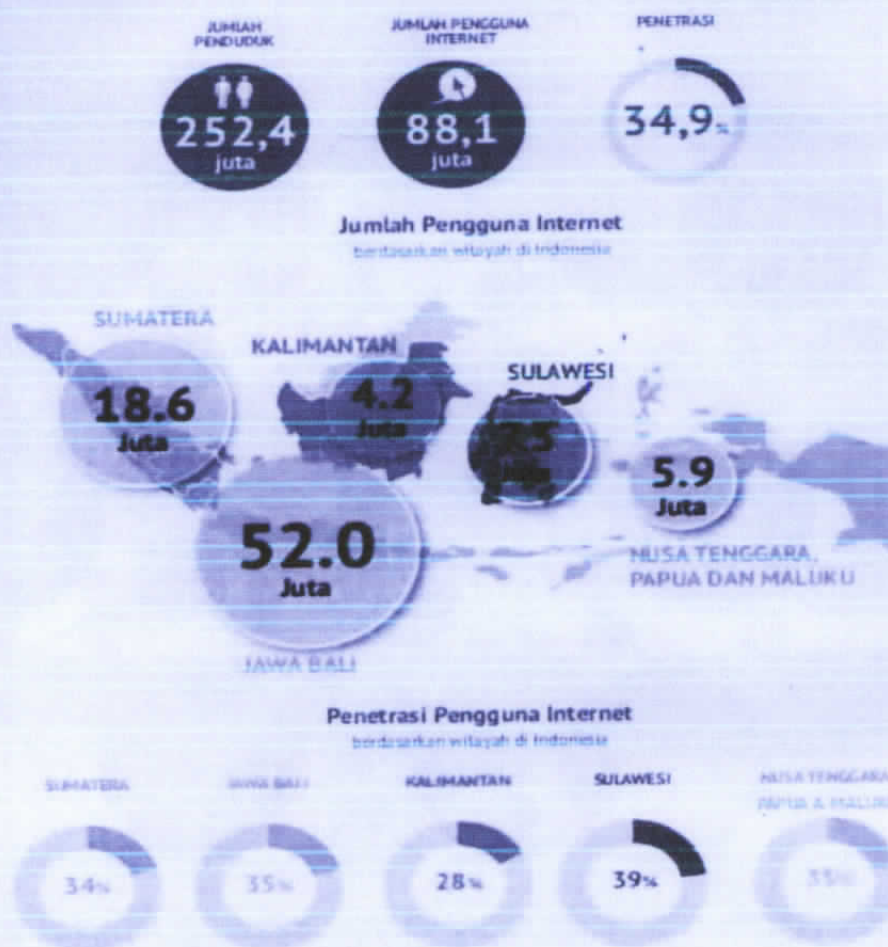| Learning Aid	Media Format	Material information	Design	Facility providers
Digital library	Html	e-Jurnal e-book virtual reading room Research	Students access the library collection ut anytime	Library
Tutorial online	Hypertext Audio–video	Audio Video Audio Video Learning materials in the first half	Question and answer Discussion Case study	Online tutorials
ITV /internet tv	Audio-video	Lecture materials	Learning materials	Open Education resources (SUAKA)-UT
Material enrichment courses	Audio-video	Lecture materials	Learning materials	Open Education resources (SUAKA)-UT

From a number of learning support materials for students of the majority of text-based and multimedia. The aid of learning resources based in audio which is operated via radio online / internet radio has not been performed by the UT. Even though the internet radio is the way

students learn more fleksibal. Because in addition to learning materials can be repeated with the construction of streaming radio in various areas will help each student a UT to select content that is needed. The following is a mapping 39 office units of distance learning programs / regional offices (UPBJJ) - UT in the regions.
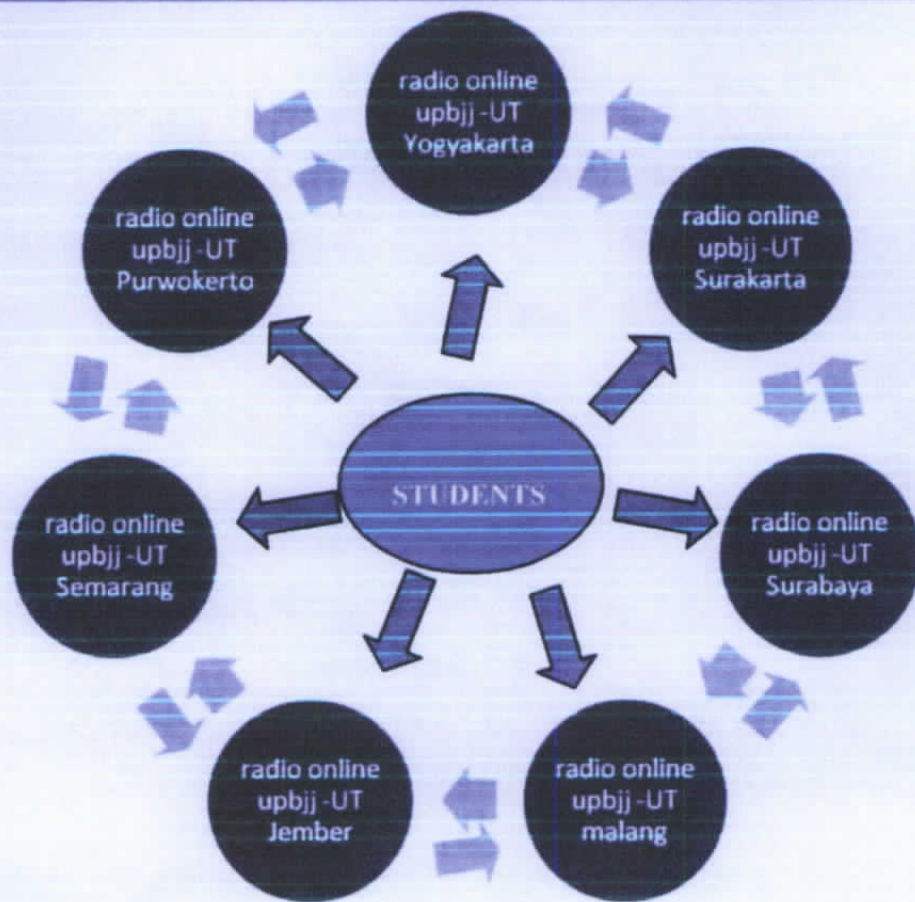

Given the very broad range of both in Indonesia and abroad, the study aid for students of UT is required. Radio online presence not only help the learning of students in the Indonesian territory, but also UT students who are outside the country such as Malaysia, Singapore, Hongkong, Taiwan, south korea, country-states in the region such as the Middle East, Saudi Arabian, Iran, Egypt ,

Indonesia has a range of internet that allows each UPBJJ make online radio accessible by UT students. Here's reach of the Internet in Indonesia. (Source APJII) Indonesian Internet Service Provider Association) - The Association of Indonesian Internet service providers (APJII) disclose the number of Internet users in Indonesia years to reach 88 million people by the end of 2014. Based on population, the highest number of Internet users is the province of West Java as much as 16.4 million, followed by 12.1 million users eastern Java and central Java 10.7 million users.

With the wide reach of the Internet allows any area containing UT students can communicate with each other. The existence of radio as a medium of communication will help students learn the material in lecture materials.

The following illustration of the interaction of online radio communications built in each UPBJJ-UT / regional offices.

This position will allow many options for UT students learn through any online radio in accordance with the necessary learning materials.

Analogous to: http://www.radioonline.co.id

By synchronizing these two models online radio UT will be provide an alternative for students to determine the hours of study, necessary learning materials.

5. 2. Online radio / streaming radio / internet radio

Radio as a medium of mass communication has many advantages including cost price, the coverage is quite extensive and can accommodate participation in significant amounts. Online radio / Internet radio is a medium that is very flexible. If each of the regional offices are online radio / radio streaming will have the opportunity for students to exchange information on the lecture material.

Besides the radio can be broadcast over the participation of various parties is possible. With these advantages is strategic radio media are used as a means of disseminating information. For streaming radio has a very wide range of broadcast coverage can be said to reach the whole world.

A. Basic Law of Broadcasting

The legal basis which can be used as a foothold on radio broadcasts are:

1. Law No. 36 Year 1999 on Telecommunication (State Gazette 1999 No. 154, Supplement to State Gazette No. 3881);

2. Government Regulation No. 52 Year 2000 on the Provision of Telecommunication (State Gazette No. 107 of 2000, Supplement to State Gazette No. 3980);

3. Government Regulation No. 53 of 2000 on the Use of Radio Frequency Spectrum and Satellite
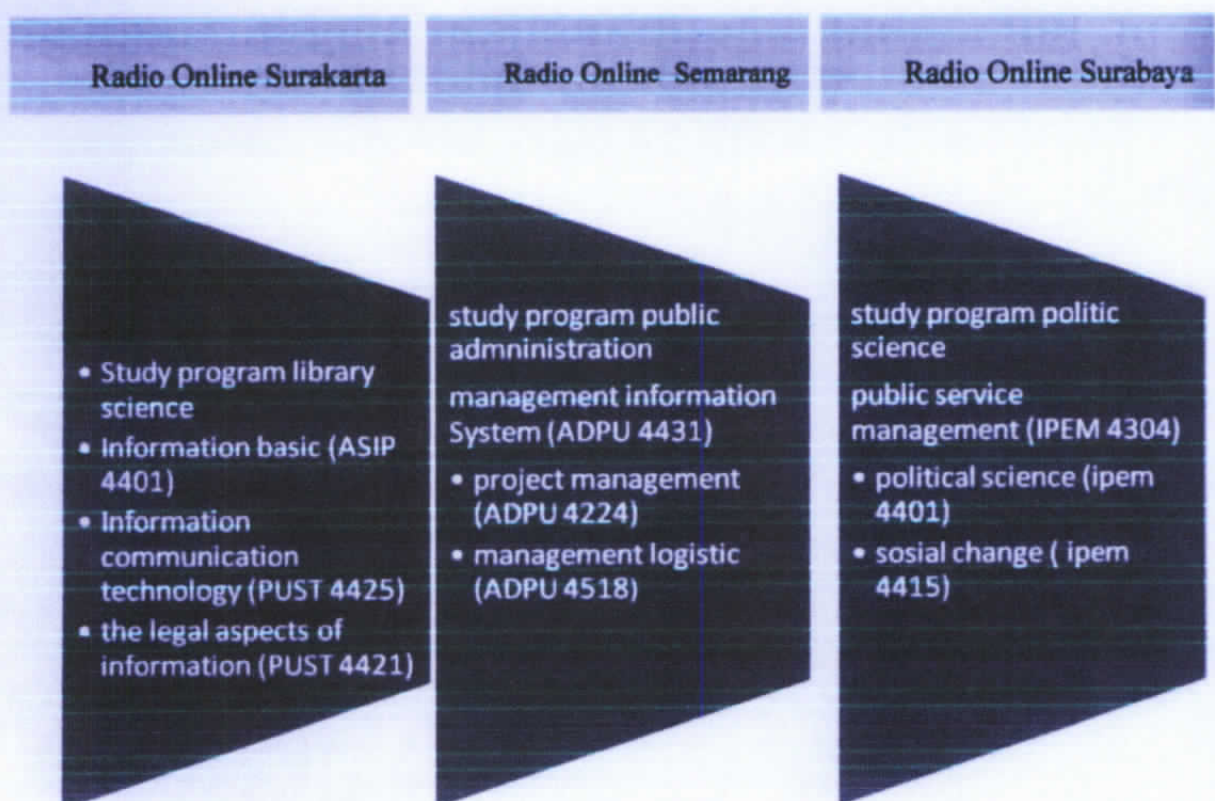   Orbit (State Gazette No. 108, Supplement to State Gazette No. 3981);

The legal basis of the above position the radio spectrum given radio frequency as the natural resources are limited, so its use should be regulated by a separate Act. As natural resources are limited radio frequencies need to be utilized optimally.

The existence of streaming radio is quite popular in the community, it can be seen from the increasing number accompanies number of conventional radio. This means that the majority of conventional radio facilitate its media streaming. The number of streaming radio in Indonesia reaches approximately 91 radio.

B. Design material online radio UT

UT online radio is designed as a means of UT students help in learning who is able to feed that choice for UT students to choose, to communicate between the existing online radio.

Here's designs on online radio

Radio Online Surakarta	Radio Online Semarang	Radio Online Surabaya
• Study program library science • Information basic (ASIP 4401) • Information communication technology (PUST 4425) • the legal aspects of information (PUST 4421)	study program public admninistration management information System (ADPU 4431) • project management (ADPU 4224) • management logistic (ADPU 4518)	study program politic science public service management (IPEM 4304) • political science (ipem 4401) • sosial change (ipem 4415)

Based on the above picture looks online radio broadcast in Surakarta UPBJJ tutorial library studies program, with course the basics of information, communications and information technology, and legal aspects of information. Meanwhile in UPBJJ Semarang online radio broadcast tutorial program

with courses of study Public Administration Management Information System, Project Management and Logistic Management,. While UPBJJ Surabaya radio broadcast tutorial Political Sciences program, with courses Introduction to Political Science, management of public services and social changes. The illustration above shows that each UPBJJ can broadcast radio content online in accordance local students. With online radio performance characteristics, the UT students can do online radio options according to their needs.

6. Conclusion

The existence of online radio plays an important role to provide learning assistance to students. With regional offices / UPBJJ that exist throughout Indonesia has the potential to provide equitable access to learning resources for students. With online radio presence in every regional office / UPBJJ provide an option for students to participate in academic information such as tutorials, discussions according to their needs. This is because every region has a diverse student karakteirstik. To build a presence online radio needs to be prepared

1. Content-based learning can be formatted audio

2. Identify the subjects that will be used as the material tutorial

7. Recommendation

Setting up adequate bandwidth so that the Internet as a media / online radio broadcasting frequencies

References

Baran, Stanley J. 2012, *Pengantar Komunikasi Masa*, Jakarta: Erlangga

Moore, Michael G and Greg Kearsley, 2012, *Distance Education: A Systems View of Online Learning*, USA Belmont, CA 94002-3098

Nurwulan, Ayu Isni dan Irving Vitra Paputungan, Seminar Nasional Aplikasi Teknologi Informasi 2009 (SNATI 2009) Yogyakarta, 20 Juni 2009 ISSN: 1907-5022, *Perancangan Radio Streaming Edukasi (Studi Kasus Balai Pengembangan Media Radio Yogyakarta)*

Puddington Arch, 2000. *Freedom The Cold War Triumph of Radio Free Europe and Radio Liberty*, The University Press of Kentucky

Simonson, Michael et-al, 2012. *Teaching and Learning at A Distance*, Boston: Pearson

Safitri, Heni dan Herawati, *Persepsi Siswa Terhadap Pemanfaatan Laboratorium Virtual Dalam Pembelajaran Fisika Topik Gerak Lurus (Survey Terhadap Siswa Kelas X Sman 87 Jakarta Selatan)* Jurnal Pendidikan , Universitas Terbuka, Vol 12 no. 2 , 2011

Widjaya, 2010, *Komunikasi dan Hubungan Masyarakat*, Jakarta: Bumi Aksara

Nurwulan Ayu Isni dan Irving Vitra Paputungan, Seminar Nasional Aplikasi Teknologi Informasi 2009 (SNATI 2009) Yogyakarta, 20 Juni 2009 ISSN: 1907-5022, *Perancangan Radio Streaming Edukasi (Studi Kasus Balai Pengembangan Media Radio Yogyakarta)*

Undang-undang Nomor 36 Tahun 1999 tentang Telekomunikasi (Lembaran Negara Tahun 1999 Nomor 154, Tambahan Lembaran Negara Nomor 3881);

Peraturan Pemerintah Nomor 52 Tahun 2000 tentang Penyelenggaraan Telekomunikasi (Lembaran Negara Tahun 2000 Nomor 107, Tambahan Lembaran Negara Nomor 3980);

Peraturan Pemerintah Nomor 53 Tahun 2000 tentang Penggunaan Spektrum Frekuensi Radio dan Orbit Satelit (Lembaran Negara Nomor 108, Tambahan Lembaran Negara Nomor 3981);

International Mobile Learning Festival 2017

Mobile & Emerging Learning, Resources, Activities, Support & Evaluation

8-10 June, 2017
Hong Kong SAR China

ABOUT THE FESTIVAL

The 4th International Mobile Learning Festival (IMLF2017) will be held at The University of Hong Kong, Hong Kong SAR China. Building upon successes of the previous conferences, we continue to explore Mobile Technologies and Emerging Learning Design in the context of school, higher and corporate education. The IMLF2017 will be located in an exceptional venue for sharing information on contemporary approaches to human development and education at all levels, learning design, mobile learning, e-learning, and Learning 2.0 from around the world. The conference will feature evidence-based developments led by mobile and emerging learning technologies and paradigms.

Tertiary and secondary school teachers, education policy makers, researchers, education publishers and designers, research students, learning technology developers and human capital agencies are all encouraged to attend and engage with colleagues at the IMLF2017. Your participation will contribute to the discussion and exploration of the most important developments in mobile learning and emerging learning technologies and paradigms.
The conference speakers will provide unique perspectives on human learning, and highlight practical enhancement of human agency through embedding of mobile and emerging technologies in learning design.

Don't miss the International Mobile Learning Festival!

FESTIVAL SCIENTIFIC, ACADEMIC AND PRACTICAL THEMES

IMLF2017 will explore concepts, practices and issues that provide pathways for effective integration of mobile and emerging learning technologies in education at all levels and environments such as, open, self-directed and flexible learning, e-learning, blended learning, flipped learning, MOOCs, and socially-networked learning. We will explore four key elements of an effective learning design: Resources, Activity, Support and Evaluation, and engage in examination of enabling conditions and articulation of coherent strategies for advancement of mobile and emerging learning design.

Mobile and Emerging Learning Resources

- Analysis and design of digital resources for learning
- Educational Apps
- E-books and digital publishing in education
- Learning objects
- Open-access resources
- Theory driven approaches to educational interface and interaction design
- Authoring systems for development of mobile resources for learning
- Social media resources
- Cloud-based resources
- Learning resources and integration with Big Data
- Emerging forms of learning resources and interactivity, virtual and augmented reality, holographic technology, interactive toys, 3D printing, and wearable devices.

Mobile and Emerging Learning Support

- Social networking and emerging forms of communication tools for learning
- Emerging devices, context awareness, and connectivity of learners
- Connected communities and culture of support
- Development of life-long/independent learning through support strategies

Mobile and Emerging Learning Activities

- Learning outcomes and mobile learning activities
- Inquiry-based learning, problem-based learning, design-based learning and other contemporary approaches to learning activity
- Innovative approaches and activities
- Digital storytelling
- Student engagement
- Gamification of a learning activity
- Case studies of mobile learning activities
- Impact of mobile learning tools and activities
- Design of mobile learning environments for blended, open, flexible, distance, distributed and classroom learning

Mobile and Emerging Evaluation and Assessment approaches

- E-portfolio Assessment
- Learning Analytics and educational data mining
- Mobile learning and assessment methodologies
- Assessment of new literacies
- Assessment of creativity and other emerging generic skills
- Feedback strategies

Building on our standard format, which includes keynote speakers, invited speakers, paper presenters and industry representations, IMLF2017 will introduce Doctoral Consortiums and Virtual Presentations.

In addition to a special issue of a top journal in the field, we plan to write the 2nd volume of the Mobile Learning Theories and Applications book to be published by Springer.

Submit your proposal, papers and nominations for speakers by 15 November, 2016.
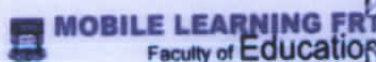We look forward to seeing you in Hong Kong in June 2017.

ACADEMIC SUPPORT

Faculty of Education
The University of Hong Kong

MOBILE LEARNING FRT
Faculty of Education

CORPORATE SPONSOR

ORGANIZING SUPPORT

CIHCD
CONSULTANTS INTERNATIONAL FOR
HUMAN CAPITAL DEVELOPMENT

Email: pc@imlf.mobi
Web: http://imlf.mobi
Call: +852 6796 9102