

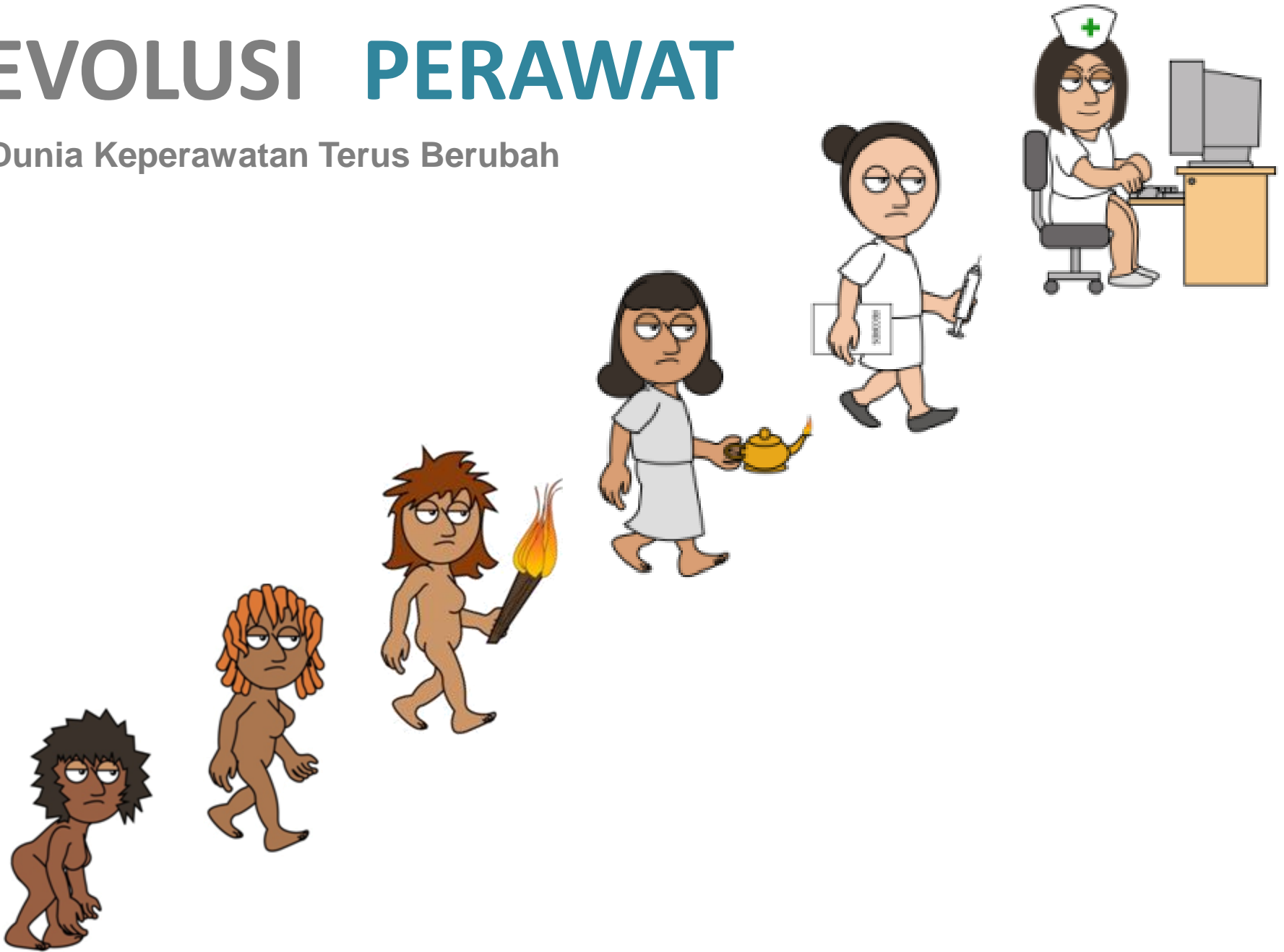
Teknologi Informasi Keperawatan

Mira Asmirajanti



EVOLUSI PERAWAT

Dunia Keperawatan Terus Berubah



Dunia Keperawatan

BEFORE

AFTER

BEFORE



AFTER

BEFORE



AFTER

TIK

**“Teknologi Informasi Keperawatan
adalah sebuah spesialisasi penggabungan:**

**ilmu keperawatan,
ilmu komputer, dan
ilmu informasi**

**untuk pengelolaan data dan pengetahuan dalam
praktek keperawatan.”**

**NURSING
INFORMATICS**



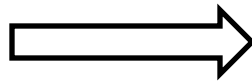
INFORMATICS

NURSING

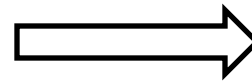
COMPUTER

INFORMATION

Healthcare
Data



Healthcare
Information



Healthcare
Knowledge

PERGESERAN DALAM PRAKTEK KEPERAWATAN



MANUAL



AUTOMATED



PAPER



PAPER-LESS



BASIC NURSING KNOWLEDGE



COMPUTER INTEGRATED

Teknologi ini Wajib Diketahui
oleh PERAWAT SAAT INI...!

**ELECTRONIC
MEDICAL
RECORD**



**HOSPITAL
INFORMATION
SYSTEM**

EMR



HIS

HIS

“Sistem berbasis komputer ini dirancang untuk mengoleksi, menyimpan, dan memanipulasi informasi klinis. Informasi klinis yang tersedia menjadi penting untuk proses pemberian layanan kesehatan.”



HOSPITAL INFORMATION SYSTEM



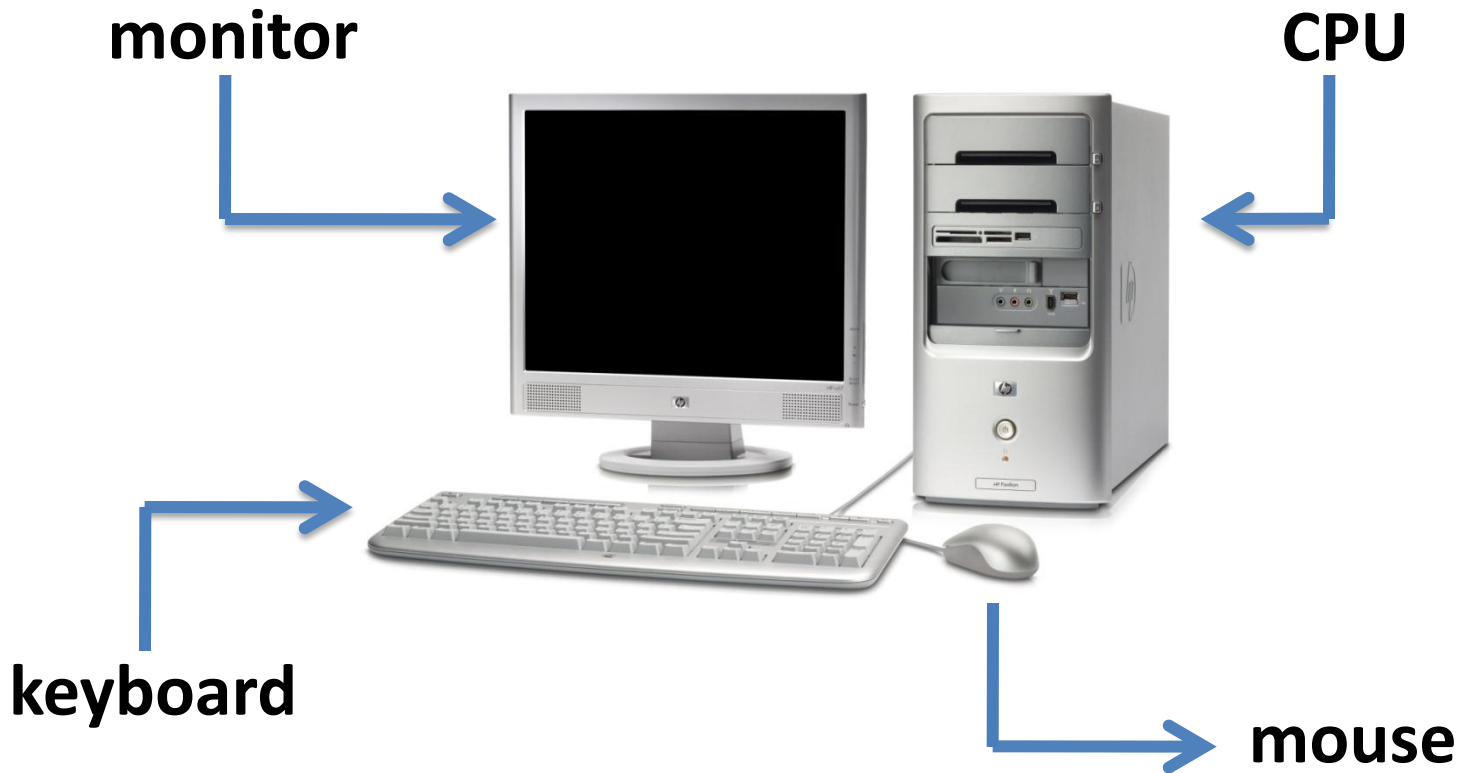
EMR

“Sebuah penyimpanan data elektronik untuk pemeliharaan informasi status kesehatan dan keperawatan.

Disimpan sedemikian rupa untuk melayani pengguna yang sah dari catatan yang tersedia.”

ELECTRONIC MEDICAL RECORD





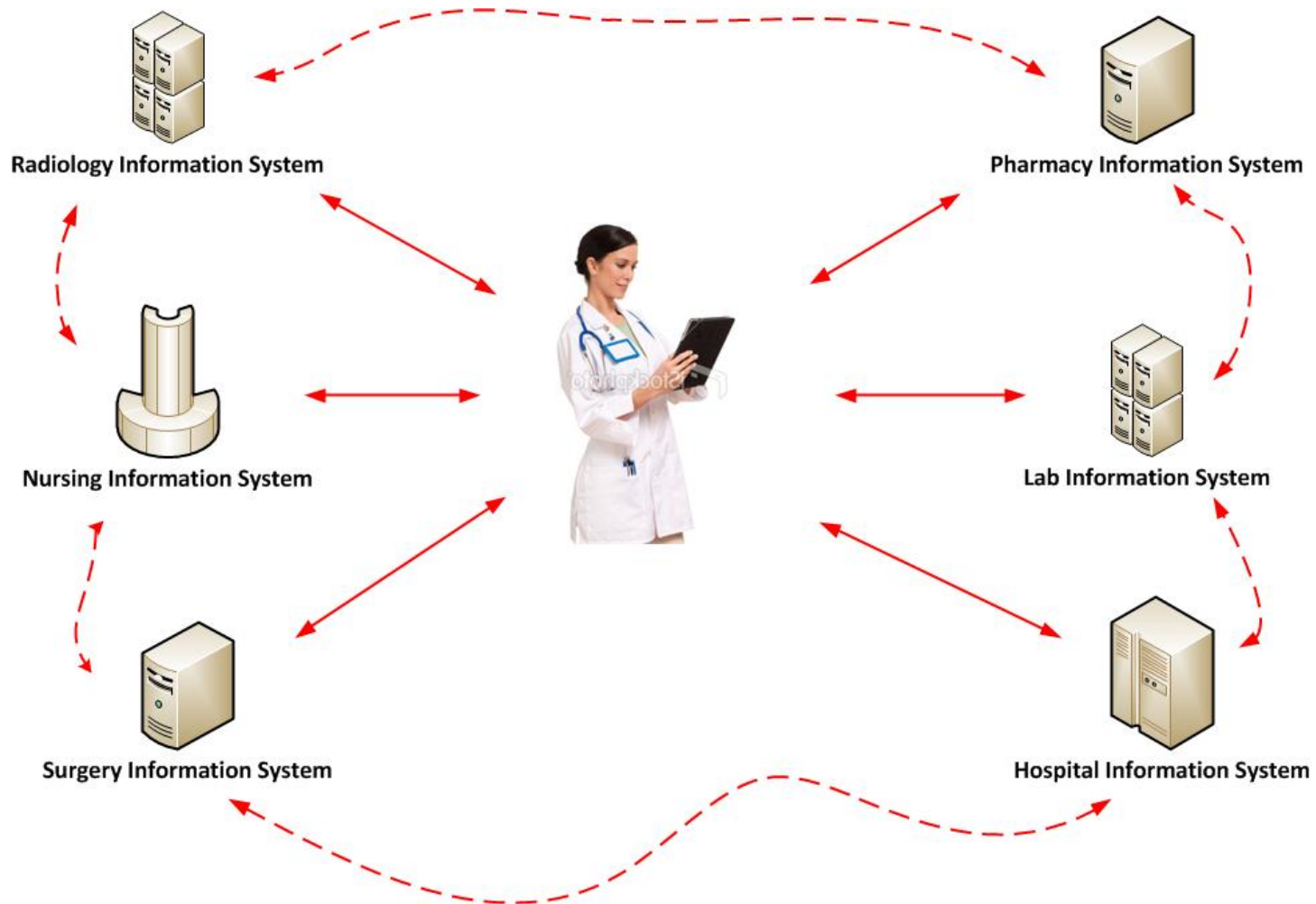
SEBAB Komputer tidak lagi
untuk kerja sendirian...



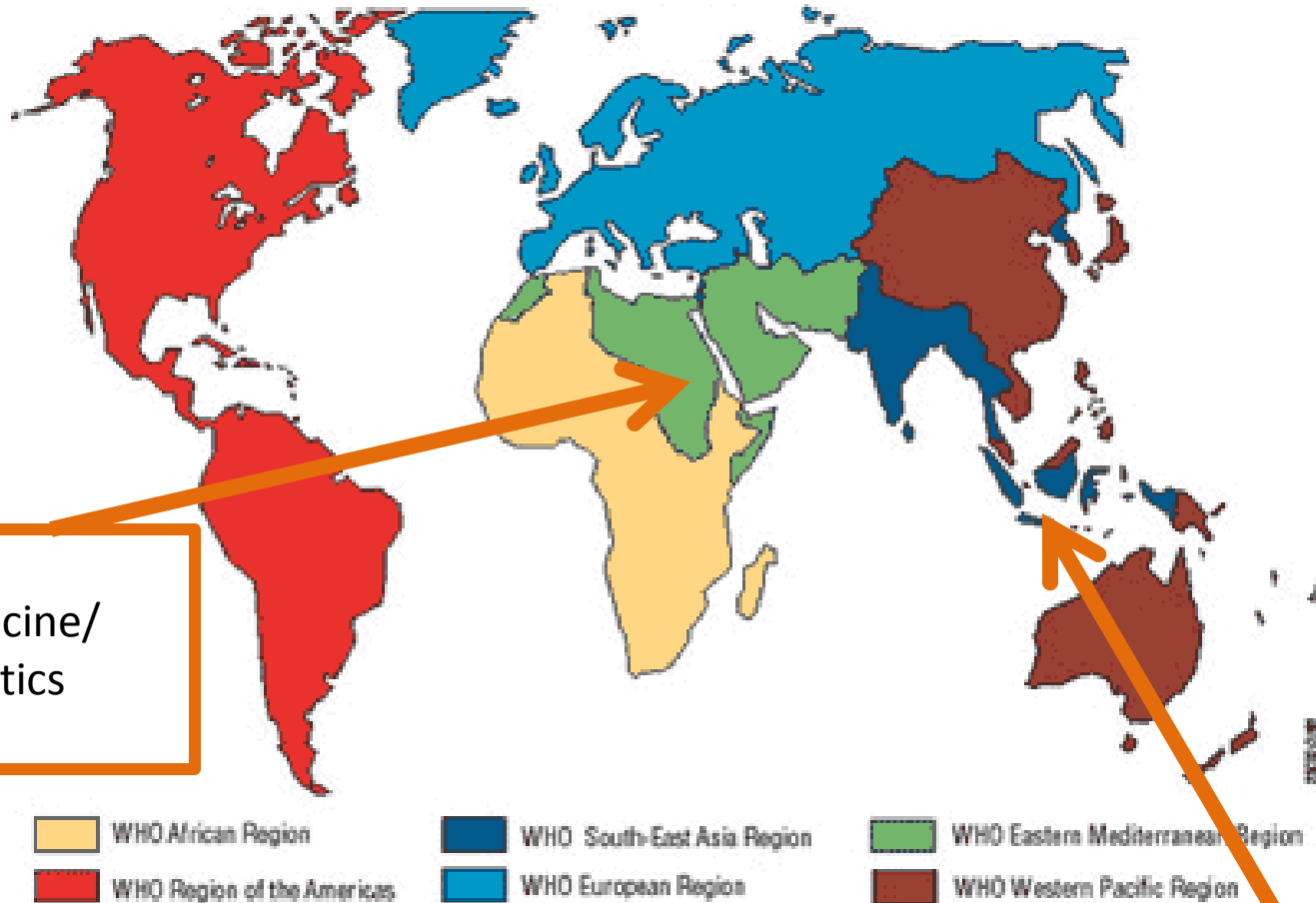
EMR & HIS

Mempermudah Berbagi Data Bersama

Sehingga proses diagnosa jadi lebih cepat, menyeluruh, dan akurat



Data Dapat Diakses Dimana Saja, Kapan Saja...



Telemicine/
Telematics

Telemicine/
Telematics

Berbagi Informasi Dengan Komunitas

facebook Mira Asmirajanti Home



Mira Asmirajanti
Went to sma negeri 11 bandung Born on September 6 Add where you work Add your hometown Edit Profile

Wall
Needs Review 8
Info
Photos (126)
Notes
Friends
Subscriptions

Friends (5383)
Annah Razaque
Tetet Kartilah
Neneng Supriha...
Windi Astuti
Heny Emaria Ulf...
Icha Nuraziza
Tenny Tantri

Introducing Timeline - a New Kind of Profile
Timeline is collection of the photos, posts and experiences that help tell your story. Learn more.
Finy Fitriany, Misses Anuar and 74 other friends have updated to the new profile.
Get Timeline Not Now

Mira Asmirajanti shared Murni Nursing College's photo.



Inter Batch Sport Carnival 2011
Pose istimewa
Aksi-aksi di ISBC 2011
By: Murni Nursing College
Like · Comment · Share · 9 hours ago
Annah Razaque and Antia Tijan like this.
Write a comment...

People You May Know See All
Zilka Azzahra II
1 mutual friend Add Friend
Abank Iwan
9 mutual friends Add Friend

Sponsored See All
Butuh Logo utk Bisnis km?
Butuh Logo, Web, Flyer cepat & murah? Dapat 300+ designs untuk dipilih, hanya perlu bayar 1 saja. Tidak suka? Uang kembali!
Ph: 081286278037.
32,636 people like Sribu.com.

Envoy Bedding
GET 50% + 5% DISC NOW! at envoy@shop. twitter: @envoybedding, BB PIN: 22D59BD7. See u on IstanaPlaza / CIWalk.

Jual Beli Espass berniaga.com
Espass mulai 10 jutaan ada di berniaga.com. Pajak panjang, surat komplit, nego langsung dg penjual. Bisa jual kembali di berniaga.com.

Penampilan baru anda disdus.com

Hermon Raturomon commented on Prabowo Subianto's status: "Ayooooooo ooooo Dukung Prabowo...."

Susy Dhamayanti and Nida Hanida are now friends.

Hermon Raturomon likes Prabowo Subianto's status.

Basyaruddin Basyar and Indra Otong are now friends.

Enkkank Ruminkank commented on Anis Musyaddah's status: "Aduh aya kasus kdrt naun yehh..."

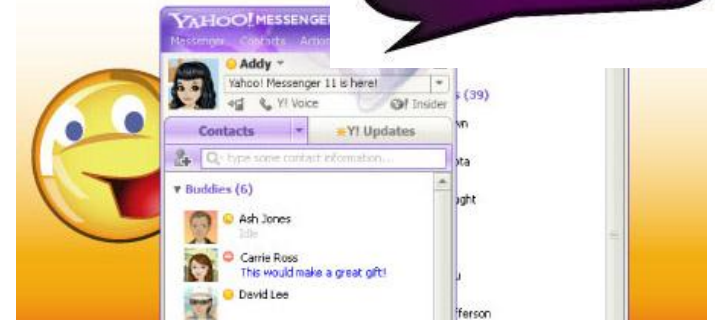
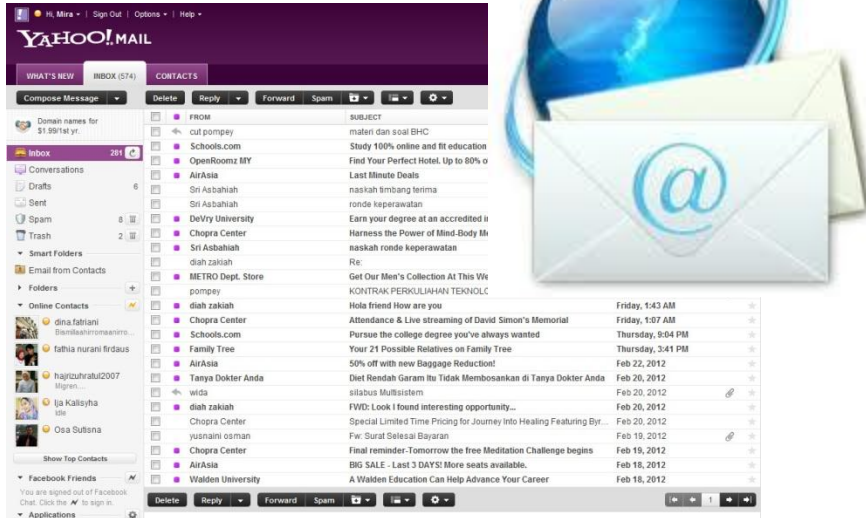
Rido Ramdan Sumantri likes his own link.

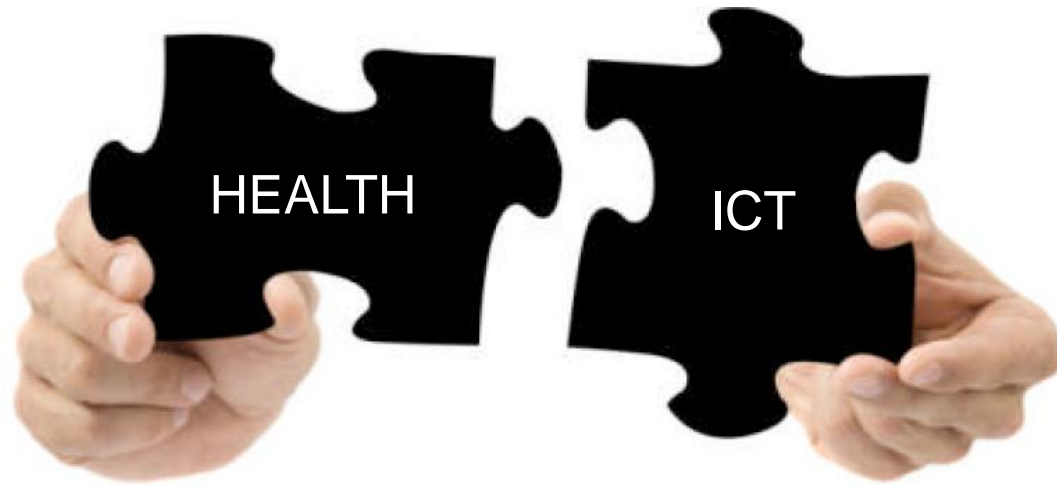
Rido Ramdan Sumantri commented on his own link: "RAsul bersanda: Barangsiapa ke..."

Alsa Floretta Fajr
Ani D Syarif
Basyaruddin Basyar
Bunda VioNasya
Henri Hendayani
Lia Indriaseri
Nur Azwa Ahmed Fadzil
Padila Hafni
Putri Ira Farhana
Rokyah Omar
Roswita Hasan
Semar Mesem
Sestramita Tuah
Sya Farizzah
Ugi Suharto

MORE ONLINE FRIENDS (9)

Sekarang Penggunaannya Sudah Lebih Serius...





Health

INFORMATICS INDONESIA

MASALAH KEPERAWATAN DI INDONESIA

**STANDARD
PENDIDIKAN
KESEHATAN**

**TIDAK
TERINTEGRASINYA
SISTEM
KEPERAWATAN**

PENINGKATAN KOMPLEKSITAS

**PENINGKATAN
KEBUTUHAN
PERAWAT
TERLATIH DAN
TERAMPIL**



**MIGRASI
MASAL PARA
PERAWAT**

**ANGGARAN
KESEHATAN
DALAM NEGERI
TIDAK
SEIMBANG**



**STANDARD
NASIONAL
RUMAH SAKIT**

KOMPLEKSITAS TINGGI

**KURANG
KORDINASI**

Populasi Tinggi Lokasi Geographis Terpisah Berbagai Bencana Alam



Winnipeg Free Press

LIFE

DAPATKAH TIK

MEMECAHKAN

MASALAH KITA DALAM
DUNIA KEPERAWATAN?





DID YOU KNOW

bahwa

INDONESIA

Sangat potensial





**Di Indonesia Pendidikan
Keperawatan & Komputer
Semakin Diminati**

INDONESIA

Salah Satu Negara Paling Antusias Teknologi di Dunia



...INDONESIA pengguna terbesar Smart Phone, Tablet PC, Gadget, Social Networking dan YM!

A hand is shown holding a white puzzle piece in the foreground. The background consists of a bright blue sky with scattered white clouds and a green field at the bottom. Several other white puzzle pieces are scattered in the air, appearing to float or fall. The overall scene suggests a process of assembly or adaptation.

INDONESIA

**Mudah Menyesuaikan
Diri Dengan
Teknologi Baru...**

Alat-alat Mudah Didapat



techsn.com



File Edit View Actions Options Tools Help

LOPEZ, KYLE Wt: 21.772 kg **PEDS 4A101-2** Admitted: 11/7/2006 11:39:47 AM **Postings:** **Care Team**
 Age/Sex: 7 (Male) Ht: 110 cm Provider: USER, PHYSICIAN Acct # Admitting MD: MURPHY, JESSICA
 MRN: 233124545 BMI/BSA: 18.0 (0.82) Admit Dx: seizure Alerts: Attending MD: MURPHY, JESSICA

New Note... Edit Delete

Default: Last 100 Signed Notes

Adm: 8/14/2006 PEDI CARDIOLOGY PROGRESS NOTE, 4A -PEDIATRICS, OLSON, KENNETH (8/16/2006 8:15 AM)

TITLE: PEDI CARDIOLOGY PROGRESS NOTE
 DATE OF NOTE: AUG 16, 2006@08:15 ENTRY DATE: AUG 17, 2006@14:15:09
 AUTHOR: OLSON, KENNETH EXP COSIGNER:
 URGENCY: STATUS: COMPLETED

S: Kyle underwent his echo today without difficulty


O:

VITALS:
 T: 99 F [37.2 C] (08/17/2006 06:20)
 P: 99 (08/17/2006 06:20)
 BP: 104/58 (08/17/2006 06:20)
 RR: 15 (08/17/2006 06:20)
 Pain:
 WEIGHT: 48 lb [21.8 kg] (08/14/2006 15:30)

GENERAL:
 This is a well developed, well nourished, MALE
 in no acute distress.

Encounter

Images



8/16/2006

Templates

Patient Summary Problem List Medications Orders Clinical Notes Consults/Procedures Discharge Summary Vital Signs Lab Results Chart Inquiries

powered by medsphere

HYLAND, PACKY

Nickname: Pacman 

Chart # T3000
 ID # 133-45-6709
 DOB 03/07/1998
 Gender M Age: 40 years 2 months [payment] [chart flags]

Alerts [edit] reviewed
 Patient may be in a good mood!

Continuing Health Problems [edit] reviewed
 272.2 - MIXED HYPERLIPIDEMIA
 244.9 - HYPOTHYROIDISM NOS

Encounter Thursday, 05/08/2008 01:30 PM
 Reason Shoulder (right)
 Provider Dr. Mike Jones, DO
 Enc. Status Exam Room
 Charge Slip Status [None] [not specified]

Allergies [edit] reviewed
 Shellfish
 -Penicilins

Current Meds [edit] reviewed
 Synthroid 150 mcg Tab
 Cymbalta 30 mg Cap
 Lipitor 10 mg Tab
 Insurance: MEDICAL MUTUAL OF OHIO (\$10.00)

AED Summary H&P Notes Correspondence Messages Medications
 Radiology Labs Sx Demos Misc Consents All

Refresh Select All Print Selected

Current Medications [quick add] [dispense] [prescribe]

Medication Name	Sig	Started On	End Date	Updated On	Prescribed By	Instructions
<input checked="" type="checkbox"/> Cymbalta 30 mg Cap	1 Tablet(s) Nightly (PRN)	05/13/2008	2 Weeks(s)	05/13/2008	Dr. Mark Johnson, D.O.	
<input checked="" type="checkbox"/> Lipitor 10 mg Tab		05/13/2008		05/13/2008	[not specified]	
<input checked="" type="checkbox"/> Synthroid 150 mcg Tab	1 Tablet(s) Daily (DAW)	04/02/2008		04/02/2008	Dr. James Smith, MD	Take on Empty Stomach

Vitals

Taken On	Ht	Wt	BP	RR	HR	Temp	LMP
05/13/2008 02:30	68 in	225lb 0oz	136/94	40	67	98.7°	
03/07/2008 10:01	68 in	208lb 0oz	128/78	13	77	98.3°	
02/18/2008 08:04	68 in	206lb 0oz	131/75	14	74	99.1°	

Visits [show all 7 visits]

App Date	Provider	Clinic	Diagnosis	Rx Prescribed	Procedures
05/13/2008	Dr. Mark Johnson, D.O.	Los Angeles		Cymbalta 30 mg Cap	
05/08/2008	Dr. Mike Jones, DO	Bloomington			

Immunizations

Vaccine	Dosage	Dose Number	Administered By	Administered On

SOFTWARE ADA DIMANA-MANA




Kenapa TIK Penting?*

- 1. Peningkatan Keberhasilan dalam Bidang Kesehatan
(Keselamatan Pasien, Pengurangan Waktu Menunggu)**
- 2. Peningkatan Aksesibilitas**
- 3. Integrasi Informasi Kesehatan Menjadi Lebih Baik**
- 4. Biaya Lebih Efisien**
- 5. Meningkatnya Kepuasan Pasien**

* Jeff Turnbull (2010)



A group of people in business attire, including white lab coats and suits, are gathered around a central point, looking upwards. Several individuals are holding cameras, suggesting a press conference or a media event. The scene is brightly lit, and the focus is on the people and their actions.

**“Informasi yang
[dikelola] baik
adalah obat terbaik..”**

Michael E. DeBakey, MD

CONTOH

Screenshot

Aplikasi

Keperawatan



Hasil Photo X-Ray

The screenshot displays the Tryton medical application interface. The main window is titled "Add to the Medical patient_data class" and contains a form for adding a new patient record. The form fields are as follows:

- Name: xray.png
- Type: Data
- Description: Posteroanterior X ray shows normal structure
- Last User: Administrator

An "ImageMagick: xray.png" window is open in the center, showing a posteroanterior (PA) chest X-ray image. The image shows the lungs, heart, and spine. The patient's name, "Betz, Ana", is visible in the top right corner of the application window. The status bar at the bottom indicates "Administrator GNU SOLIDARIO", "Waiting requests: 0 received - 0 sent", and "admin@localhost:8070/trunk".

Hasil Test Lab

Tryton

File User Options Plugins Shortcuts Help

Menu

- Party Management
- Product
- Currency Management
- Health
 - Configuration
 - Laboratory
 - Diseases
 - Procedures
 - Health Centers
 - Physicians
 - Medicaments
 - Misc
 - Genetics
 - Appointments
 - Hospitalizations
 - Patients
 - Laboratory
 - Lab Tests Results
 - Lab Test Requests
 - Neonatology
 - Reporting
 - Administration

Lab Tests Res ...

Lab Tests Results

1 / 1

Main Info Extra Info

ID: TEST001 Test type: COMPLETE BLOOD COUNT

Date of the Analysis: 09/19/2011 01:43:00

Patient: Betz, Ana Pathologist: Norton, Cray

Date requested: 09/19/2011 01:43:00 Physician: Cordara, Cameron

Lab Test Critearea

W	E	Analyte	Value	Result - Text	Lower Limit	Upper Limit	Units	Remarks
<input type="checkbox"/>	<input type="checkbox"/>	Hemoglobin	13.00		11.00	16.00	g/dL	
<input type="checkbox"/>	<input type="checkbox"/>	RBC	4.00		3.50	5.50	10 ⁶ /uL	
<input type="checkbox"/>	<input type="checkbox"/>	HCT	39.00		37.00	50.00	%	
<input type="checkbox"/>	<input type="checkbox"/>	MCV	84.00		82.00	95.00	fl	
<input type="checkbox"/>	<input type="checkbox"/>	MCH	28.00		27.00	31.00	pg	
<input type="checkbox"/>	<input type="checkbox"/>	MCHC	34.00		32.00	36.00	g/dL	
<input type="checkbox"/>	<input type="checkbox"/>	RDW-CV	13.00		11.50	14.50	%	
<input type="checkbox"/>	<input type="checkbox"/>	RDW-SD	37.00		35.00	56.00	fl	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	WBC	14.00		4.50	11.00	10 ³ /uL	Patient has bacterial pneumonia
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NEU%	75.00		40.00	70.00	%	
<input type="checkbox"/>	<input type="checkbox"/>	LYM%	22.00		20.00	45.00	%	
<input type="checkbox"/>	<input type="checkbox"/>	MON%	5.00		2.00	10.00	%	
<input type="checkbox"/>	<input type="checkbox"/>	EOS%	3.00		1.00	6.00	%	
<input type="checkbox"/>	<input type="checkbox"/>	PLT	200.00		150.00	400.00	10 ³ /uL	

Lab Report

Administrator GNU SOLIDARIO HOSPITAL

Waiting requests: 0 received - 0 sent

admin@localhost:8070/final133

Data Kelahiran Baru

Tryton

File User Options Plugins Shortcuts Help

Menu

- Party Management
- Product
- Currency Management
- Health
 - Configuration
 - Laboratory
 - Diseases
 - Procedures
 - Health Centers
 - Physicians
 - Medicaments
 - Misc
 - Genetics
 - Appointments
 - Hospitalizations
 - Patients
 - Laboratory
 - Neonatology
 - Newborn
 - Reporting
 - Administration

Newborn

Newborn Record saved! 1 / 1

Main Findings and Tests Other

Main


Newborn ID: 545364754 Baby's name: Esperanza

Mother: Betz, Ana Sex: Female

Date of Birth: 10/11/2008 07:39:00 Dismissed from hospital: 10/14/2008 07:40:00

Length: 51 Weight: 3200

Cephalic Perimeter: 36 Doctor in charge: Cordara, Cameron



APGAR scores

Minute	APGAR Score	Appearance	Pulse	Grimace	Activity	Respiration
1	9	acrocyanosis	> 100	cry or pull away when stimulated	flexed arms and legs	strong
5	10	no cyanosis	> 100	cry or pull away when stimulated	flexed arms and legs	strong

Reanimation

Stimulation: Aspiration:

Intubation: Mask:

Oxygen:

Notes

Administrator GNU SOLIDARIO

Waiting requests: 0 received - 0 sent

admin@localhost:8070/trunk

Talla, peso y perímetro cefálico según la edad



LABORATORY REPORT

Name **Ana Betz** Patient ID : PAC001
Date 2011-08-25 08:00:00 Age 25y 10m 26d Sex Female
Doctor Cameron Cordara

COMPLETE BLOOD COUNT

Test Name	Result	Normal Range	Units
Hemoglobin	12	11.0-16.0	g/dL
RBC	3.2	3.5-5.50	10⁶/uL
HCT	36	37.0-50.0	%
MCV	83	82-95	fl
MCH	28	27-31	pg
MCHC	33	32.0-36.0	g/dL
RDW-CV	12	11.5-14.5	%
RDW-SD	44	35-56	fl
WBC	6.7	4.5-11	10 ³ /uL
NEU%	60	40-70	%
LYM%	30	20-45	%
MON%	8	2-10	%

Laporan Laboratorium

**“Ketika kita tidak lagi mampu
mengubah situasi,
kita ditantang untuk
mengubah diri kita sendiri”**

Victor Frankl



SALAM NURSING INFORMATICS... 😊

