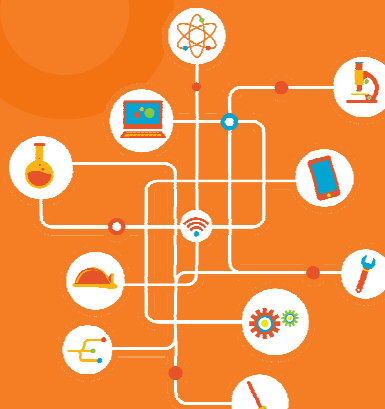# Labor Market Demand Driven Skill Development

Sang Hyon Lee

8th International Skills Forum
27–29 August 2019
Asian Development Bank, Manila, Philippines

#ADBSkillsForum

**SESSION 6B :
Leveraging Technologies for Labor Market Information
28 August, 2019**

Contents

Industry 4.0 is here. Samsung Electronics in Viet Nam

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Introduction

Skills are a critical asset for individuals, businesses and societies.

With the industrial revolution 4.0 mismatching skills and jobs has become a high-priority policy concern.

Many employers report difficulties in finding suitably skilled workers.

Training institutions planning, implementing, and evaluating programs, curricula, and career guidance to meet the needs of both job seekers and employers, Demand of labor market.

LMIS and PES is critical for good decision making for training investment

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Sources of LMI for skill development

Real time LMI : Job matching websites

Labor demand survey

Employment forecasting

Future job research

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Real-Time LMIS

By using Big Data technologies and analytics for millions of online employer ads, real-time LMI can help to achieve a more complete understanding of labor and skill demand on a national or regional basis.

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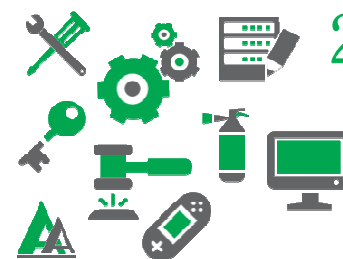
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WorkNet as a real time LMIS

No. of Work–Net app downloads

5.02
million times
(No. 1)

Job openings

2,446,000
(No. 1) jobs

No. of daily visitors
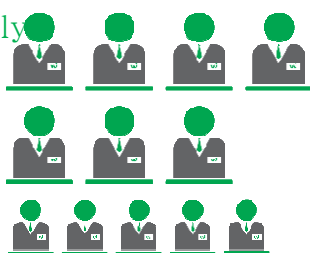
805,000 people
(No. 1)

No of Job placements

1,832,000
people

Visitors by Country: Germany 200,000/ Japan 460,000/ France 120,000/ the Netherlands 180,000

Youth-friendly hidden champions: 891 companies

No. of Work–Net members

12.23
million people

Job information links
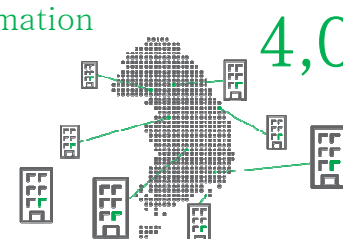
4,009,000
Job seekers

18 public institutions/ local governments, 81 regional Work-Net, 8 private employment portal

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Mobile WorkNet

Youth service

Company information
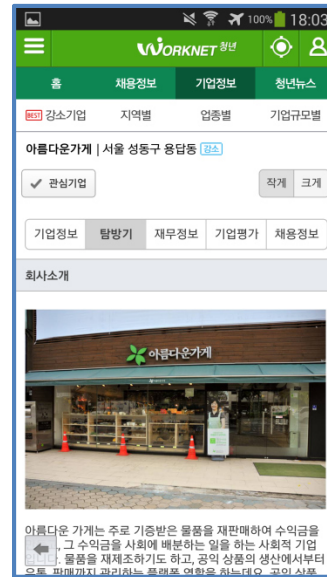
Details of job openings
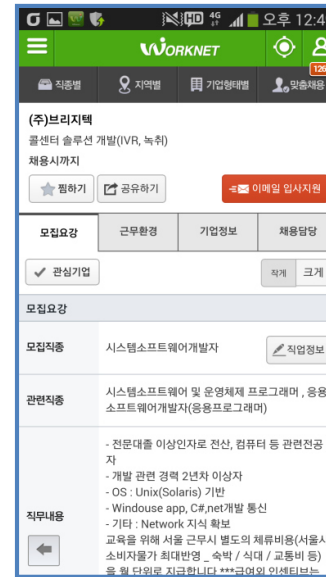
Individual service
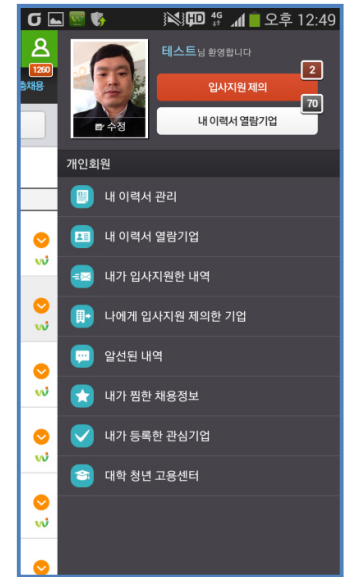
구인/구직 분석 > | 구직자경쟁력 분석 | 취득/재직 분석 | 재직임금/기간 분석 | 재직자이력 분석 | 출력미리보기

검색

No. of Jobseekers and job openings for social welfare counselors in BUSAN

검색

No. of job openings and job seekers

1,100
825
550
275
0

(명,건)

1,020
247
104
20   57   6

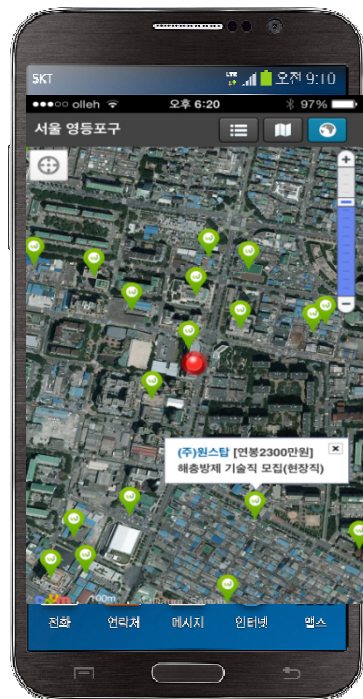부산광역시(전체)   부산광역시 북구

구인인원수
구직신청건수(전체)
구직신청건수(동일유형)

No. of Job matchings

3,000
2,250
1,500
750
0

(명,건)

2,774
247   361
20   293   33

부산광역시(전체)   부산광역시 북구

구인인원수
알선·이메일 입사지원 구직건수(전체)
알선·이메일 입사지원 구직건수(동일유형)

설명보기

No. of Job seekers

Age
20
15
10
5
0

(명)

4
14
1
17
0
13
0
4
2
2

19세 20~29 30~39 40~49 50~59 60세

Gender
50명
87.7%
7명
12.3%

Education
32
24
16
8

(명)

0 1 2 5 20 25 4 0

무학 초졸 중졸 고졸 전문대졸 대졸 대졸(석사) 대졸(박사)
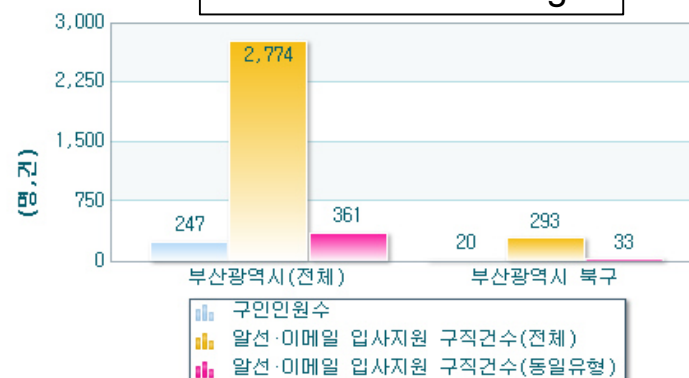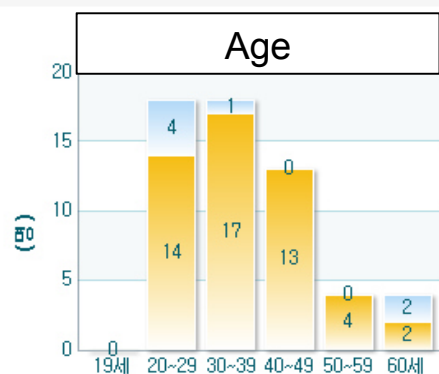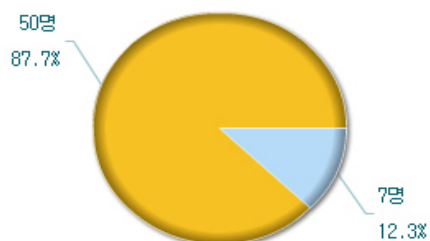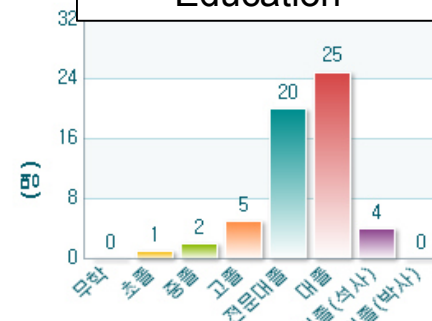
How to recommend contents customized to individuals at "TheWork"

Generation of analysis mart on a regular basis from employment information system(Big-data Platform)

Analysis mart

Basic properties | **History of received benefits** | **Company**

- Basic properties
- status
- Job-seeking conditions
- Customer category

- History of received benefits
- Job-seeking history
- Training history
- Earned Qualifications

- Basic properties

gender/age income … | Job seeker worker … | Salary Location … | Foreigner The disabled …

Employment policy employment/training | Bookmark Job application | Training attendance Training certificate | National/private qualifications | Type of business/Type of company

Analyzing recommendations for each content using analysis mart data

- Job Recommendation
- Training Recommendation
- Policy Recommendation
- Qualification Recommendation
- Company Recommendation
- Vocational Psychology test Recommendation

The use of appropriate algorithms for analysis

Network

Association

Logic

RULE 1 — 로직 — IF A THEN B ELSE END
RULE 2 — 로직 — IF A THEN B ELSE FND
RULE 3 — 로직 — IF A THEN B ELSE FND

UNION

…

기업 / 일자리 / 직업/진로 / 정책 / 훈련/자격
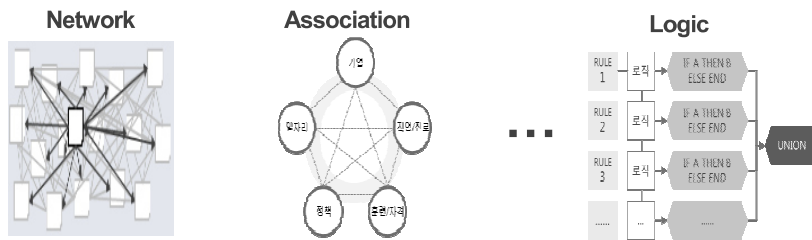
Generation of the result of contents recommendation analysis by user(Service)

User	Job	Training	Policy	Qualification	Company	Vocational Psychology Test
name 1						

Provide recommendation results to the job portal → Display recommendation results to users

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전체 7,790 건 　　가나다 | 시작일 | **훈련기관 직종별 취업률 ↓** | 취업처 임금평균 | 만족도　10개씩 ▼　보기

Total training courses

Related Job openings

3D모델링CAM가공

관련정보보기 ▼

국가기간전략훈련

(재)이찬 경남직업전문학교 (경남 창원시 마산회원구 ☎ 055-292-4000)

훈련기간 : 2019-08-19 ~ 2020-03-19　　　훈련기관 직종별 취업률 [TIP] : 100 %

취업처 임금평균 [TIP] : 2,302,841 원　　　훈련비 : 5,673,000 원 (전액 정부지원)

모집정원 : 2　　　　　　　　　　　　　주말여부 : 주중

Employment rates

Wages

훈련시간 : 145 일 , 총 1000 시간　　　　과정 만족도 : ★★★★★

수강생 평균연령대 : 33 세　　　　　　　직종(직무수준) : CAM (3수준)

NCS적용여부 : 적용　　　　　　　　　　관련자격증 :

나에게

자주묻는 질문

구직자 동영상시청

수강평등록

HRD활용기 웹툰

ICT 네트워크보안 관리자 양성과정

관련정보보기 ▼

국가기간전략훈련　★스타강사과정

로고 이미지가 없습니다

경원직업전문학교 (서울 관악구 ☎ 02-855-9611)

훈련기간 : 2019-08-26 ~ 2020-02-27　　　훈련기관 직종별 취업률 [TIP] : 100 %

취업처 임금평균 [TIP] : 2,096,439 원　　　훈련비 : 6,577,000 원 (전액 정부지원)

모집정원 : 20 명　　　　　　　　　　　주말여부 : 주중

훈련시간 : 126 일 , 총 1000 시간　　　　과정 만족도 : ★★★★★

수강생 평균연령대 : 24 세　　　　　　　직종(직무수준) : IT시스템관리 (5수준)

NCS적용여부 : 적용　　　　　　　　　　관련자격증 :

(일반고 특화) 미용사(일반) 자격취득과정

관련정보보기 ▼

내일배움카드(구직자)　일반고특화과정

광주국제직업전문학교

광주국제직업전문학교 (광주 북구 ☎ 062-266-6617)

직업훈련포털＋
HRD-Net

창닫기 ✕

일자리 관련정보

WORKNET

| 자격증 (8) | **일자리 (3,518)** | 직업 (2) |

등록일 | **마감일 ↑**

(주)엠와이 - 공작기계 보조직원구합니다

| 근무지역 : 경기 시흥시 | 임금 : 200만원(월급) | 학력 : 고졸·대졸(2~3년) | 채용마감 : 2019-08-16 |
| 등록일 : 2019-06-17 | 출처 : 워크넷 | 고용형태 : 기간의 정함이 있는 근로계약 | |

(주)비엘정공건드릴 - (주)비엘정공건드릴 현장 가족을 모십니다.

| 근무지역 : 경기 화성시 | 임금 : 1만원(시급) | 학력 : 학력무관 | 채용마감 : 2019-08-16 |
| 등록일 : 2019-06-17 | 출처 : 워크넷 | 고용형태 : 기간의 정함이 없는 근로계약 | |

(주)비엘정공 - 연삭기 및 연마(광택)기 조작원

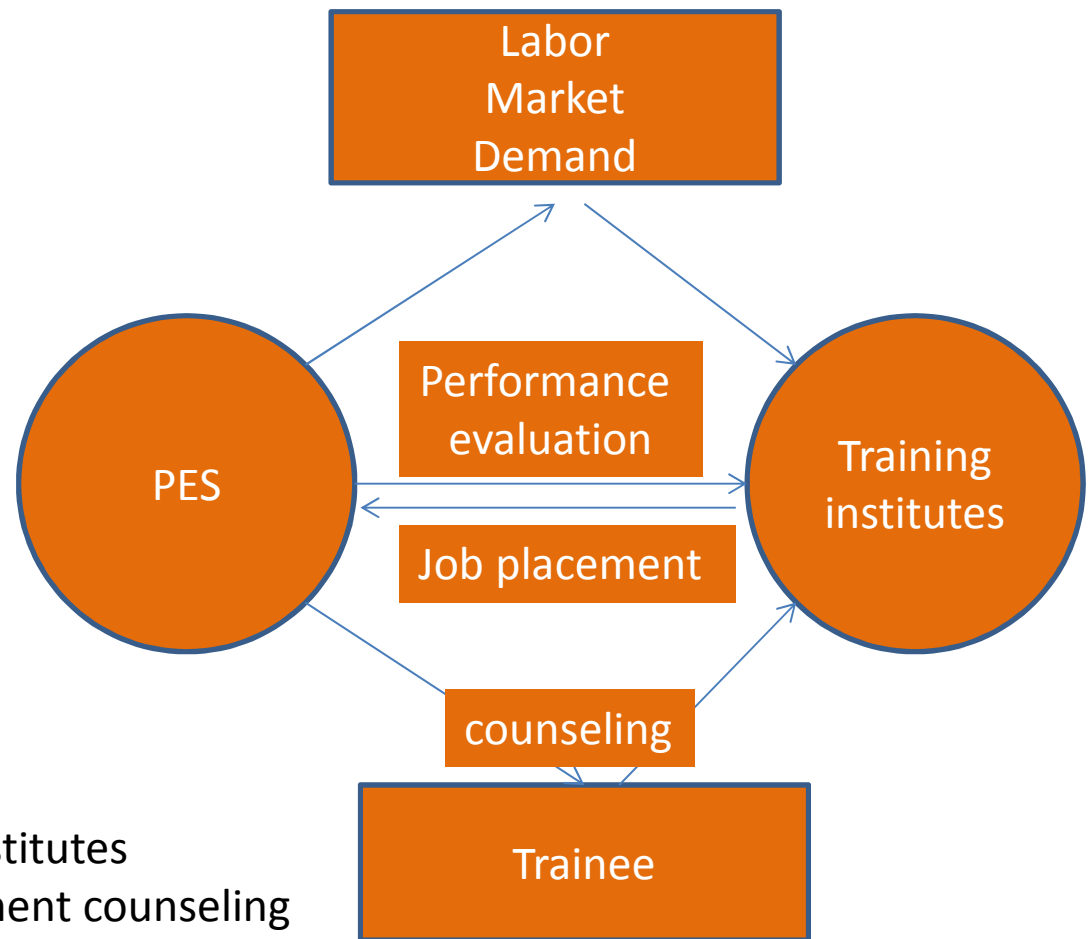| 근무지역 : 경기 화성시 | 임금 : 1만원(시급) | 학력 : 학력무관 | 채용마감 : 2019-08-16 |
| 등록일 : 2019-06-17 | 출처 : 워크넷 | 고용형태 : 기간의 정함이 없는 근로계약 | |

대산정밀 - 절곡 밴딩 조작원 구합니다

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PES and Training should be linked as one

```
                          ┌──────────────┐
                          │    Labor     │
                          │    Market    │
                          │    Demand    │
                          └──────────────┘
                         ↗                ↘
            ┌─────────┐    Performance     ┌───────────┐
            │         │    evaluation      │           │
            │   PES   │  ──────────────→   │  Training  │
            │         │  ←──────────────   │  institutes│
            └─────────┘    Job placement   └───────────┘
                         ↘                ↗
                          counseling
                          ┌──────────────┐
                          │   Trainee    │
                          └──────────────┘
```

[Roles of PES for skill development]
Supply Labor Market data
Performance evaluation of training institutes
Career development an skill development counseling
Job placement services for trainees

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Policy Recommends

To increase the cost benefit of training investment, training decision should be made by clear evidence of labor market demand

Need to develop strong labor market demand data in various aspects

Need to research on the analysis of LMI, occupational information and employment forecasting

Develop online and mobile job matching system and use as real-time LMIS

Need to increase the competency of trainers and vocational counselors using labor market information

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Thank You!