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**Date:** 2011

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Skills Framework for the Information Age (SFIA®)

Presenter: Susan Bailey  
Principal Lecturer & Field Chair Information Sciences (ISc) University of Northampton. Cert Ed. MSc. CITP. Chartered Fellow BCS.

Course leader MSc and PG Cert in IT Service Management. Trained in ITIL and SFIA® accredited.

Worked in IT industry for 40 years

Member of SFIA® Council  
Northamptonshire Branch Member of Chartered Institute for IT (BCS).

Member itSMF and the itSMF Qualifications & Certification Executive Steering Committee  
Vice Chairman of the itSMF Special Interest Group (SIG) for Education.

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Transforming lives, inspiring change
What is SFIA®

• It stands for “The Skills Framework for the Information Age”
• It is a “High level competency framework describing the skills needed by IT professionals; adopted Worldwide by industry and Government, including UK Government”
• It is presented as a two-dimensional framework defining responsibility on one axis and areas of work on the other
• Its purpose is to provide “a standardised view of the wide range of professional skills needed by people working in Information Technology (IT)”
• Currently at version SFIA® v4G but latest release will be **SFIA®v5 in September 2011 which will be available in Spanish before the end of the year.**
Vital links and facts about SFIA®

• A Spanish translation of the SFIA® framework is available through this link: http://www.SFIA.cl/access_framework/index.shtml

• A Spanish version of the chart is available at: SFIA_A3_chart_v4_Spanish.pdf

• Hard copies of these two documents are available and there is a complete SFIA® Spanish website at: http://www.SFIA.cl/

• SFIA® was devised and completed in 2000 and launched at the DTI conference in 2001

• It is adopted by UK government and large organisations

• Now being adopted globally
Who helped create it?

30 key organisations helped to devise SFIA® including representatives from:

- The British Computer Society (now The Chartered Institute for IT)
- Department for Education and Employment
- Department of Trade and Industry
- IBM
- Fujitsu Services
- Microsoft
- National Computing Centre (NCC)
- Oracle
- The Post Office
Why invent SFIA®?

SFIA® was devised as a way of providing:
- Right People
- Right Skills
- Right Place
- Right Time

How is this achieved using SFIA®?
Why do organisations adopt SFIA®?

- SFIA® provides a common reference model of roles that exist in IT and the skills needed to perform them.
- It has industry-wide recognition and is implemented by organisations such as Unilever, HM Customs and Excise, AVIVA, European Central Bank, Rolls-Royce, UK Government and Border Agency.
- It is a consistent and evolving framework of skills used for defining job roles in the workplace, skills gap analysis, personal development, succession planning. It allows employers to measure the skills they have against the skills they need and identify skill gaps.
- It quantifies the skills of the IT labour market and allows employers to formulate more accurate job descriptions.
- SFIA®plus* product provides supporting information.

*Available through The Chartered Institute of IT (BCS)
WHAT IS SFIAplus?

SFIAplus provides additional information resources

90 skills and 7 levels

For each skill, SFIA gives an overall definition and definitions at up to 7 levels

For each level of the skill...

Related SFIA skills
Technical overview
Careers & jobs
Professional bodies
Standards, Codes of Practice
Communities and Events
Publications & Resources
Training, development & qualifications overview

Background
Work activities
Knowledge
Training activities
Qualifications
Professional Development Activities
What is the Global appeal of SFIA®?

• A wide range of countries have adopted SFIA® including AUSTRALIA, CHILE, BELGIUM, ITALY, JAPAN, GERMANY, NEW ZEALAND, CROATIA, UNITED ARAB EMIRATES because it is an ‘off the shelf’ framework that is easy to understand, adopt and adapt.

• The SFIA® framework is available FREE upon registration – OVER 25,000 COPIES IN OVER 100 COUNTRIES HAVE BEEN PROVIDED SO FAR

• Translation is provided in SPANISH, GERMAN, JAPANESE AND MANDARIN CHINESE

• SFIA® is regularly reviewed and updated to reflect current industry needs
Stakeholders of SFIA®

THE SFIA® COUNCIL HAS REPRESENTATIVES FROM:

- THE CHARTERED INSTITUTE FOR IT (BCS)
- CABINET OFFICE
- DTI
- E-SKILLS UK
- HERTFORDSHIRE CC
- IBM
- THE IET
- IKM
- IMIS
- IRISH COMPUTER SOCIETY
- ITSMF
- MICROSOFT TRAINING ARENA
- NORTH CORNWALL DC
- PA CONSULTING
- PARITY TRAINING
- QA
- QEDIS
- RAF
- SALARY.COM
- SOCITM
- THE SFIA® FOUNDATION
- UNIVERSITY OF NORTHAMPTON BUSINESS SCHOOL

SFIA® PARTNERS –GLOBAL REPRESENTATIVES INCLUDE:

AUSTRALIA
BELGIUM
CHILE
  • SEGACY
ITALY
JAPAN
NEW ZEALAND
REPUBLIC OF IRELAND
UNITED KINGDOM (ALMOST 30 IN TOTAL INCLUDING)
  • THE CHARTERED INSTITUTE FOR IT (BCS)
  • e-skills UK
  • IBM
  • IET
  • THE OPEN UNIVERSITY
  • UNIVERSITY OF NORTHAMPTON BUSINESS SCHOOL

The SFIA Foundation is a not-for-profit organisation whose members are:

- THE CHARTERED INSTITUTE FOR IT (BCS)
- e-skills UK
- IBM
- THE IET
- IMIS
- ITSMF UK
- THE OPEN UNIVERSITY
- UNIVERSITY OF NORTHAMPTON BUSINESS SCHOOL

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How does SFIA® work?

SFIA® defines **Levels of responsibility** which are defined generically and form the basis of the core competences.
There are 7 levels of responsibility:

1. Follow
2. Assist
3. Apply
4. Enable
5. Ensure, advise
6. Initiate, influence
7. Set strategy, inspire, mobilise

**Levels of responsibility are also** used in conjunction with 6 defined Skill Categories (and Sub-Categories) namely:

1. Strategy and architecture
2. Business change
3. Solution development and implementation
4. Service management
5. Procurement and management support
6. Client interface
## SFIA® grid

**One of the 6 Skill Categories**

<table>
<thead>
<tr>
<th>Category/SubCategory</th>
<th>Skill</th>
<th>Code</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy and architecture</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Strategy</td>
<td>Corporate governance of IT</td>
<td>GOUN</td>
<td>6 7</td>
</tr>
<tr>
<td></td>
<td>Information Management</td>
<td>IRMG</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td></td>
<td>Information systems coordination</td>
<td>ISCO</td>
<td>6 7</td>
</tr>
<tr>
<td></td>
<td>Information policy formation</td>
<td>DPRO</td>
<td>5 6</td>
</tr>
<tr>
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<td>Information security</td>
<td>SCTY</td>
<td>3 4 5 6</td>
</tr>
<tr>
<td></td>
<td>Information assurance</td>
<td>INAS</td>
<td>3 4 5 6</td>
</tr>
<tr>
<td></td>
<td>Information analysis</td>
<td>INAN</td>
<td>4 5 6</td>
</tr>
<tr>
<td></td>
<td>Information content publishing</td>
<td>ICPM</td>
<td>2 3 4 5 6</td>
</tr>
<tr>
<td>Advice and guidance</td>
<td>Consultancy</td>
<td>CNSL</td>
<td>5 6 7</td>
</tr>
<tr>
<td></td>
<td>Technical specialism</td>
<td>TECH</td>
<td>5 6 7</td>
</tr>
<tr>
<td><strong>Business / IT strategy and planning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>Research</td>
<td>RSCH</td>
<td>3 4 5 6</td>
</tr>
<tr>
<td>Innovation</td>
<td>Innovation</td>
<td>INOV</td>
<td>6</td>
</tr>
<tr>
<td>Business process improvement</td>
<td>Business process improvement</td>
<td>BPRE</td>
<td>5 6 7</td>
</tr>
<tr>
<td>Enterprise architecture</td>
<td>Enterprise architecture</td>
<td>STPL</td>
<td>5 6 7</td>
</tr>
<tr>
<td>Business risk management</td>
<td>Business risk management</td>
<td>BURM</td>
<td>5 6</td>
</tr>
<tr>
<td><strong>Technical strategy &amp; planning</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Solutions architecture</td>
<td>Solutions architecture</td>
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<tr>
<td>Emerging technology monitoring</td>
<td>Emerging technology monitoring</td>
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<td>5 6</td>
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<tr>
<td>Continuity management</td>
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<td>COFL</td>
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<tr>
<td>Software development process improvement</td>
<td>Software development process improvement</td>
<td>SPIM</td>
<td>5 6 7</td>
</tr>
<tr>
<td>Network planning</td>
<td>Network planning</td>
<td>NTPL</td>
<td>5 6</td>
</tr>
</tbody>
</table>

Levels of responsibility associated with each category

Source: The Chartered Institute for IT (BCS) Website

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Transforming lives, inspiring change
Why is SFIA® important in Higher Education

• Although traditionally SFIA® has been used by organisations in the work environment to:
  ✓ Support recruitment by defining job skills
  ✓ Assess job requirements, objectives and professional capabilities
  ✓ Measure levels of success and capabilities
  ✓ Define development plans for staff
  ✓ Aid pay and promotion based on measurable progress
  ✓ Highlight skills gaps

• There is a role for SFIA® in Higher Education
  ✓ The University of Northampton first recognised this in 2006 and was first Academic establishment to attempt the mapping of SFIA®.
  ✓ The education sector is a now a growth area
Why align SFIA® to the Curriculum

People are autonomous

- Carry with them through their working life
  - skills
  - qualifications
  - experience
- Education should provide skills to underpin their working life
- Aligning the learning outcomes of degree programmes to a skills framework like SFIA® is a Win Win solution
How to put SFIA® in to the Curriculum

• Analyse Learning outcomes
• Compare and align to SFIA® grid
• Set assessed work to prove the Learning Outcomes and therefore skills have been achieved
• Draw up a grid of SFIA® skills obtained at
  - Module level
  - Programme level
• Provide students with the defined set of SFIA® skills attained
• Keep abreast of changes and continually up to date delivery
# University of Northampton model

## SFIA CODES

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<td></td>
<td>M020</td>
<td>M021</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## SFIA CODES

|       | P     | I     | H     | M     | P     | S     | A     | D     | A     | B     | C     | I     | I     | D     | D     | K     | A     | A     | E     |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

## Strategy and architecture

|       | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

## Examples

<table>
<thead>
<tr>
<th></th>
<th>IRMG (Information Management)</th>
<th>SCTY (Information Security)</th>
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<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td></td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

IM = INFORMATION MANAGEMENT  
BI = BUSINESS INTELLIGENCE  
KAM = KNOWLEDGE & ASSET MANAGEMENT  
QASM = QUALITY AND SECURITY MANAGEMENT  
CDP = CONSULTANCY DEVELOPMENT PROJECT  
AEM = ACCESS AND EVENT MANAGEMENT  
PM = PROJECT MANAGEMENT  
DISS = DISSERTATION UG AND PG  
AD = ADVANCED DATABASES
Win Win

• Embeds a professional industry lead framework into the curriculum
• Addresses the skills gap at the early stages in the education journey and is sustainable from UG to PhD
• Enhances current skill set of:
  ✓ communication skills;
  ✓ groupwork skills;
  ✓ information skills;
  ✓ problem solving;
  ✓ use of IT;
  ✓ application of number
• ........With an industry related skills set - SFIA®
Timeline for SFIA® at The University of Northampton

- **2007** – Understanding and Initial Aligning of SFIA® v3
- **2008** – 1st SFIA® Grid for UG presented at Learning and Teaching Conference at University of Northampton
- **2009** – Evolving course content to reflect industry needs and realignment of SFIA® v4. Aligned PG programmes to SFIA®.
- **2009** – Presented at SFIA® conference 2009 in London Embedding Skills Framework for the Information Age (SFIA®) into HE Programmes
- **2009** – Bailey, S; Aldis K; October 2009 “How do you solve a problem..use SFIA®” Service Talk, Byfleet Surrey
- **2010** – Further realignment and lowering of skill levels. Considered 4G changes.
- **2011** – Lobbied for additional skills at Level 1 and 2 to assist our adoption of SFIA® in academia
- **2011** – Created a methodology for aligning SFIA® to the curriculum and refined the creation of transcript for graduating students
- **2011** – Visited INACAP to deliver methodology and assist with SFIA® adoption
Future?

- Alignment to SFIA® skills in schools?
- Government lead initiative to roll out the SFIA® framework across all education and training providers of IT courses – public and private sector?
- Wider Global roll out?
- Slow steady and consistent acquisition of skills wins the race!!
Useful Links and references

- SFIA® websites

  *Text from the Skills Framework for the Information Age quoted by kind permission of The SFIA® Foundation: [www.SFIA.org.uk](http://www.SFIA.org.uk).*

  Overview chart v4

  [http://scripts.bcs.org/sfiaplus/sfia.htm](http://scripts.bcs.org/sfiaplus/sfia.htm)

  ✓ Introducing SFIA® handbook


University of Northampton- Business Computing Courses and MSc IT Service Management:


- [http://www.northampton.ac.uk/courses/154/it-service-management-msc/](http://www.northampton.ac.uk/courses/154/it-service-management-msc/)
Thank You

Any questions?