Adult learners and lifelong learning – the e-inclusion agenda

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Abstract: Recent research states an increasing need to upgrade citizens' digital competences. Some citizens have not yet managed to access digital tools and media effectively. Their inability to use ICT gradually becomes a barrier to social integration. The paper presents research and development, currently in progress, aimed at empowering these adults. Furthermore, the paper concerns adults' motivation for learning to use ICT and their needs to act and communicate in digital environments. In particular, the paper concerns scenarios enabling lifelong learning for adults with short or no further education. These learning scenarios are realized nationwide by the Danish Government. The objective is to prepare for lifelong learning and learn to use digital tools and media effectively.

Keywords: Lifelong learning, adult learners, e-inclusion, digital literacy, intrinsic motivation, learning scenarios.

1. Introduction

'The social construction of reality' [1] may take place in the following manner: At first, some people consider their digital practice. In particular, they consider the pros and cons of various approaches. Then, they decide to act and behave in certain manners. Later on, they consider their experiences and make some adjustments before acting again. After some time, they think "Our practise should be so and so". Consequently, they tell newcomers: "We do it in the following manner".

Often, the newcomers need digital competences to pick up common procedures and assimilate daily routines. Frequently, access to communities of practice requires background knowledge and understanding of digital tools and media. The social integration is more or less based on the old principle: "If you don't like the heat, get out of the kitchen". In this manner, digital literacy is fast becoming as important for work, leisure and personal development as reading and writing [2].

Consequently, the inability to use ICT becomes a barrier to social integration. The provision of adult education, vocational training, non-formal and informal
learning undertaken throughout life can overcome this barrier [4]. Provision of
counselling and guidance from colleagues, neighbours, students, and family
members can also foster e-inclusion. All these activities can stimulate the
development of literacy and lead on to digital competence and a confident and
critical use of digital technology for work, leisure, learning and communication.

2. The adult e-inclusion agenda

The following paragraphs deal with a nationwide development project initiated by
the Danish Government in order to promote e-inclusion of citizens of the age of 18
years or more having little, if any, experience using ICT. Due to lack of training,
counselling, and guidance, they are currently unable to benefit from the use of
digital tools and media.

Moreover, the target population is orally literate but has little if any formal
education below 9th or 10th grade and it does not have an aptitude for formal
learning. Research findings indicate that this population is part of a larger group of
European adults, around 40-50 %, who needs digital knowledge, skills, and
competencies [10]. The number is increasing. Unless this trend is reversed, the
size will be around 70 % within few years [3]. Digital literacy thus remains a
major challenge.

The Government has encouraged citizens to attend preparatory courses for
adults with rather low competences in reading and mathematics in several years.
These courses are considered a supplement and support to other adult vocational
training efforts and they are provided free of charge. In 2008, three learning
scenarios concerning the use of ICT were developed by the author and
implemented into the preparatory adult education. The overall objective is to
foster e-inclusion and prepare for lifelong learning. The formative evaluation of
the pilot scenarios was very positive [8].

In 2009, the learning scenarios were implemented nationwide. The scenarios
are designed in preparation for the widespread use of ICT in the knowledge
society. The specific objectives are defined in a framework embedding the adult
learner in the socio-cultural context crucial for personal growth. The
complementary learning scenarios are aimed at clarifying, improving, and
complementing the adult learners’ knowledge and skills needed to use ICT.
Furthermore, they are aimed at increasing the adult's active participation in
continuous education and training as well as in all major aspects of social life.

The preparatory literacy education is free of charge. In addition, the adult
learners can apply for compensation for lost salaries. The complete education
is divided into three modules. In module 1 and 2, the learner is assigned the role as
receiver of information. The number of lessons is 40-60. In module 3, the learner
is assigned the role as producer. The number of lessons is 60-80.
Usually, the adult learners begin with module 1, but some adult learners, who are familiar with the content of this basic module, begin with module 2. The whole of the modules and the two different entrance levels are illustrated in figure 1. After completing a module, the learners are examined. If they need additional time, they can repeat a module partly or completely.

Figure 1. Learning modules

2.1 Adult learning scenarios

The pilot modules are the result of research and development considering the digital competencies needed in the knowledge society. To increase literacy standards, it is necessary to examine social practice. In particular, it is essential to analyse current cultural techniques, i.e., the competencies needed to be able to make meaning – as producer or receiver – from the signs of the culture.

The three learning scenarios are considered in sociological terms, not just cognitive terms. Moreover, the motivational factors are considered. The scenarios are considered attractive, since they provide positive opportunities for personal development at homes, work places, educational settings, communities and other contexts [6].

These functional systems, which individuals move through, are loosely connected. Empowerment in one of these systems is not automatically transferred to the other contexts. Consequently, the e-inclusion has to take part in each of these systems.

To be fully included, the citizens need to be social integrated at home, at work place, in educational settings, and most often in various other communities of practice. Each of these social systems has some digital content that the citizens need to be able to make meaning out of and some skills that they need to develop in order to participate fully. In consequence, the adult learners need to learn to use digital tools and media for leisure-time activities, work, education, hobbies, etc.
2.2 Learning objectives

The adult learners are encouraged to access digital information, search for this information, communicate using digital media, collect and store digital materials, create digital expressions, etc. Hereby, they learn to help themselves in every day scenarios.

Having completed module 1, the learner is capable of performing tasks considered common using the intra/Internet, i.e., watching, listening to and reading information. The tasks must be performed under the following conditions: Understanding key terms, entering URLs, following links, and navigating using a common browser. Moreover, the learner is capable of getting information of various types, i.e., texts, pictures, animations and video clips, and to print and save selected information. Using e-mail, the learner is also capable of submitting copies of textual information to his or her own e-mail address in order to make use of it at the job, in education, or in leisure time.

Having completed module 2, the learner is capable of performing these tasks by routine, not just by imitation or following instructions. The objective is to automate the skills. The tasks must be performed under the following conditions: Without reference to the manual or supervision, the learner is capable of collecting a portfolio of digital material to be used on the job, in study or training, or in leisure-time activities. Using a browser, the learner is also capable of collecting and maintaining a list of favourite links and behaving safely on the intra/Internet.

Having completed module 3, the learner is capable of producing text messages as well as expressions integrating text, images, and numbers. The tasks must be performed under the following conditions: By routine, the learner is capable of producing expressions considered common on the learner's workplace, in training and e-learning, as well as in spare time. Moreover, the learner is capable of producing e-mail with attachments and using text-to-speech software, word prediction, word processing, spelling and grammar control, and do image editing. In addition, the learner is familiar with the end-user terminology and the pros and cons of using the intra/Internet compared to verbal or paper based means of communication. In particular, the learner knows about security matters and how to behave safely using the intra/Internet.

3. Motives for learning

In the various contexts, home, work place, educational setting, etc., the citizens' practice is closely related to individual goals providing drive for and direction to action. Some of these goals may be unspoken. Others may be explicit, i.e. they can be accessed and identified through verbalisations like “I want to work on this …”. The crucial point is that individuals have something in mind that they are trying to
attain. Providing differentiated guidance, a first step is to examine what they are trying to accomplish, and why they need or want to do it using ICT.

A second step is to plan learning scenarios tailored to the learners' general and specific motives. A common idea about general motives for learning is the following: people have different needs, and it is the search to satisfy these needs that motivates to various learning activities. A well-know example is the theory of A. H. Maslow stating that "the study of motivation must be in part the study of the ultimate human goals or desires or needs" [7].

According to this theory, the personal motives are conceptual derivations that can be examined by means of 'deeper analysis'. It "will always lead ultimately to certain goals or needs behind which we cannot go; that is to certain need-satisfactions, which do not seem to need any further justification or demonstration, but seem to be ends. These needs have the particular quality in the average person of not being seen directly very often but of being more often a kind of conceptual derivation from the multiplicity of specific conscious desires" [7].

Despite an intuitive appeal, there is a problem associated with the use of conceptual derivations like goals, ends, desires, and needs: The explanation of self-regulated activities eventually becomes tautological. The derivations are used as an explanatory mechanism to observe a person's behaviour and then to infer that the same person must have a need to do exactly that. The logic turns out to be circular.

For example, a learner participating in adult education, who is quite and not very talkative, would be said need to learn alone. Another adult learner that is very social and talks to everyone would be said to need to engage socially. In this way almost any behaviour can be referenced to a desire, need, or goal and, in turn, when someone has these needs, they cause the behaviour. The theory of Maslow is, however, still considered very useful, since it classifies various needs and provides an overview of general groups of needs (Table 1).

Table 1. Maslow’s needs-based theory of motivation

<table>
<thead>
<tr>
<th>Needs or goals</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-actualisation needs</td>
<td>Growth through the realisation of ones potential and capacities; the need for comprehension and insight</td>
</tr>
<tr>
<td>Esteem needs</td>
<td>Needs for achievement, to gain approval and recognition, prestige</td>
</tr>
<tr>
<td>Affiliative needs</td>
<td>Needs for belongingness, affection, love security, social acceptance, identity</td>
</tr>
<tr>
<td>Safety needs</td>
<td>Sheltering, security, stability, freedom, protection from, among other things, pain, fear, anxiety, and disorganisation</td>
</tr>
<tr>
<td>Psychological needs</td>
<td>Hunger, thirst, sexuality, etc.</td>
</tr>
</tbody>
</table>

The table shows a hierarchy of needs. The highest and most important with respect to personal development is the 'self-actualisation needs'. This kind of needs "refers to man’s desire for self-fulfilment, namely, to the tendency for him
to become actualised in what he is potentially”. Although the notion of self-actualisation needs is considered a conceptual derivative, it can be used to characterise the needs of many adults, who want to realise their human potentials in general, and become fluent with respect to digital technology in particular.

3.1 Intrinsic self-actualisation needs

The theory can be elaborated by considering the difference between extrinsic, purpose-oriented motivation and intrinsic activity-oriented motivation. Adult learners engage in extrinsically motivated activities because of external factors like rules, requirements, values, and assignments. If they expect to be rewarded for doing well, their performance may improve.

On the contrary, the adult learners engage in intrinsically motivated activities for their own sake and not because they are told to do so [9]. They become committed simply because they want to. The ‘driving force’ is self-authentication, enjoyment, interest, challenge, curiosity, eagerness to communicate, etc.

For example, some adults want to spend a lot of time using digital means of communication. They want to interact with people they know beforehand as well as with people they have never met. Their networks are not just a state of mind, but a fact of life. In the constitution of their social life, their use of digital means of communication has a profound impact. Social relations take on a new, hitherto almost inconceivable flavour pointing towards post-bodied forms of identity. Accordingly, they often direct their lifelong learning towards social ends [5]. Their cognitive regulation does not accomplish for the choice of activities, efforts, persistence. In stead, their learning is socially motivated. In particular, the development of digital competencies is intrinsically motivated and underpinned by social relevance.

Although these motives for learning reflect expectations that cannot be observed directly, they may be inferred in other ways. They can, of course, be identified from the learners’ verbal statements. Furthermore, they can be examined in three additional ways [9]. Significant indicators of the learners’ motivation are their choices of activities, their efforts, and their persistence while learning (Table 2).

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Relation to motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice of activity or task</td>
<td>Indicates motivation to perform the activity/task</td>
</tr>
<tr>
<td>Effort</td>
<td>High effort is indicative of motivation</td>
</tr>
<tr>
<td>Persistence</td>
<td>Working for a longer time is associated with high motivation</td>
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</table>
To pick up new procedures and assimilate daily routines, newcomers need to practice. Intrinsic motivated adult learners are more likely to practice what they have learned.

On the contrary, when there is no motivation to make meaning from digital content, there is little development in terms of digital competencies. By adjusting the learning tasks and differentiate with respect to effort and persistence, the activities can deepen the adult learners’ existing intrinsic motivation. Accordingly, the learning events are personalized with respect to the intrinsic self-actualisation needs.

4. Conclusion

This article addresses e-inclusion. Generally speaking, adults have an increasing need for digital competencies. The ability to access or use digital tools and media lowers the common barriers to lifelong learning and social integration. The article reports findings from research and development examining the digital needs among adults with little or no further education. In particular, the article considers the adult's motivation and needs for learning to interact socially using digital technology. In order to meet these needs, it also considers socially motivated learning scenarios.

In socially motivated learning scenarios, the cooperative learning aspects are balanced with personal motives. The primary 'driving force' is not external rewards and requirements. Instead, it is considered to be self-actualisation, enjoyment, interest, challenge, curiosity, and eagerness to communicate with others.

Currently, the three socially motivated scenarios are implemented nationwide into adult learning by the Danish Government. The overall objective is to develop life skills and foster lifelong learning and e-inclusion. The formative evaluation of the pilot scenarios indicates that the implementation of these scenarios is highly successful.

References


