

Agency of the Future
Report by the Information and Communications Technology
Committee

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A: Introduction

This report focuses on the work undertaken by the Information and Communications Technology (ICT) Committee of the Agency of the Future (AoF) Project.

The AoF Project is a national initiative being developed collaboratively by the Pathways to Prosperity research consortium, settlement service providers and settlement umbrella associations. The goals of the AoF Project are:

- to strengthen the sector's ability to capitalize on emerging market opportunities, such as serving new clients
- to take independent action in the face of extensive policy and program changes, reductions in public expenditure, the appearance of new technologies, and changes in the institutional structure of the settlement industry, including the entry of new competitors delivering settlement services

1. Key project assumptions about the Agency of the Future

Several important assumptions and observations underpin the proposed configuration of the AoF project. These are listed below:

1. The first is that the changing settlement 'ecosystem' offers settlement organizations new opportunities to market their expertise and services to mainstream for-profit and not-for-profit institutions, as well as to newcomers with the means to pay for customized services. Selling services to these clients would reduce the sector's dependence on existing financial sources, notably grants and contributions, and would allow settlement organizations to allocate their earnings according to their own priorities. These might include enhanced refugee services, better physical facilities, and improved professional training for staff.
2. The second is that the settlement sector enjoys a strategic advantage over other organizations interested in delivering services to newcomers, or potential newcomers. This advantage resides in the ability that agencies have acquired to combine discrete federal, provincial and other programs elements into comprehensive and creative solutions to the problems that confront new arrivals. Settlement agencies have also acquired the ability to mobilize newcomers and (transnational) ethno-cultural and religious networks to assist them in their work. Both the specialized program expertise and the ability to access and mobilize essential networks have resulted from the manner

in which settlement organizations conduct themselves and perform their work. As such, they possess a strategic advantage over other organizations that do not operate in the same way.

3. The third is that the size and span of the national immigrant service sector produce a deep pool of ‘experimental’ projects and ideas for addressing many of the challenges and opportunities that face newcomers and the institutions that serve them. Research, conducted for the sector has shown, however, that while individual settlement agencies across the country have evolved numerous creative and effective ‘solutions’, these innovations are not widely known and are not systematically shared within the sector. As a result, innovation has been impaired and the sector’s full potential remains unrealized. A key constraint on the wider dissemination of ideas is that existing fiscal arrangements between the ‘industry’ and government are chiefly organized on a fee-for-service basis that does not provide much support for knowledge activities, beyond financial and audit reporting.
4. The fourth is that a recurrent ‘Innovation Cycle’ can be built to capitalize on the inherent ingenuity of settlement organizations. The Innovation Cycle would involve three discrete stages: (i) A strategic stage where settlement umbrella associations, acting for their members, would identify business development opportunities and priorities; (ii) A discovery stage centred on locating existing innovative practices in the targeted priority areas and analyzing them to uncover the internal (to the agency) and external factors that would need to be replicated in order to transfer the practice to another location; and (iii) A training and knowledge transfer phase where the requisite knowledge for introducing new services would be transmitted to interested settlement agencies.

2. Initial process leading to forming committees

The Agency of the Future project was formally introduced in June 2013 at a meeting in Toronto hosted by OCASI – the Ontario Council of Agencies Serving Immigrants. The primary goal of that meeting was to establish proof of concept for the project by testing its core ideas with a dozen or so experts drawn from three constituent groups: the settlement sector itself, comprising settlement agencies and umbrella associations; government, represented by officials from Citizenship and Immigration Canada; and researchers from the Pathways to Prosperity Partnership (P2P). A paper was prepared by the P2P ahead of the meeting setting out the project’s concepts and the analysis that underpinned them, and proposing an innovation ‘engine’ that would drive the sector’s transformation and foster its independence.

Based on the positive reaction of participants at the first meeting to the project’s goals and ideas, a second meeting was arranged in Ottawa in September 2013. This second meeting, hosted by the P2P, extended the discussion to a broader and more representative settlement

audience. In addition to academic and government participants, the process was joined by representatives from the provincial, regional, and national settlement umbrella associations. This was consistent with the goal of initiating a transition from concept to action.

In support of the planned transition, a revised paper was prepared responding to the suggestions and comments that were offered in Toronto at the OCASI meeting. This entailed a more developed description of the innovation cycle - including its financing and task allocation – and a proposal for a series of committees that would develop specific components of the overall project design.

While endorsing the project's objectives and assumptions, participants at the second meeting were not comfortable with three aspects of the proposed design: (i) the mechanisms for financing the innovation cycle; (ii) the allocation of responsibility among the settlement sector and other stakeholders for the strategic, analytic, and instructional components of the innovation cycle; and (iii) the complexity of the proposed committee structure. As a result, several project components were modified. In particular, the number of committees was reduced and their mandates combined; and consideration of the social financing machinery, proposed for operationalizing the innovation cycle, was put on hold pending clarification of how the cycle would function and what role various partners would assume.

Three working committees were formed at the September meeting:

1. The Information and Communications Technology Committee (ICT) , charged with examining the current and potential uses of new information and communication technologies;
2. The Service Lines and Business Planning Committee, charged with identifying and evaluating new business lines that the sector might invest in; and
3. The Innovation Cycle and Coordination with Partners Committee, charged with developing the innovation cycle and clarifying partner and stakeholder responsibilities for strategic direction setting, identification and analysis of promising practices, and knowledge dissemination.

The committees were 'staffed' by volunteers drawn from the settlement sector and the P2P research initiative. CIC expressed a desire to participate in an observer capacity.

Both the Service Lines and Business Planning Committee and the ICT Committee have advanced their agendas. Importantly, the Business Planning Committee augmented its membership with leaders from the national settlement sector and identified a number of service lines that may offer commercial opportunities. Examples include: a 'concierge service' for employers wishing to hire and retain immigrants or international students; overseas services for prospective

newcomers; and services for international students and educational institutions. Because of overlaps between this Committee and the Innovation Cycle Committee, the two have merged.

Two key proposals have emerged from the Service Lines and Business Planning Committee: The first is for a series of studies to assess market potential in specific areas; the second is for a pan-Canadian survey of settlement sector organizations in order to identify any services they provide on a commercial basis to institutions or newcomers, or that are they are considering providing.

The Committee that has advanced the furthest in addressing its mandate has been the ICT Committee. The report will now turn to a more detailed consideration of the work carried out by this Committee.

3. Information and Communications Technology Committee (ICT) and mandate

In this project, ICT refers mainly to internet-based digital technologies such as social media (e.g. Facebook, Twitter, LinkedIn), mobile phone functions (e.g. texting and apps), blogs, videoconferencing and webinar tools (e.g. WebEx, Collaborate), Learning Management Systems (e.g. Desire to Learn, Canvas), file sharing programs (e.g. Dropbox, Google Drive), videosharing (e.g. YouTube, Vimeo) and group collaboration tools (e.g. Google Docs). ICTs are changing many sectors of society and the economy, sometimes in very disruptive ways, causing seismic changes to how individuals, organizations and governments operate. The ICT Committee was mandated to discuss what role ICTs could play in the Agency of the Future. In particular, the group was asked to explore the potential uses of new technologies and social media to improve existing services, to extend the promotion and sale of existing services, and to create new services. Thinking about this mandate, the Committee started with two basic questions:

- What might settlement service agencies and settlement organizations look like five years from now?
- What role could ICTs play in the future of these organizations?

From these basic initial questions emerged more immediate queries aimed at operationalizing the mandate of the ICT committee:

- What are current practices and initiatives by settlement service organizations for using ICTs?
- What demands and roles are these practices and initiatives fulfilling?
- What are the possible uses of ICTs in settlement service agencies?
- What issues and challenges exist in using ICTs?

These questions provided a focus for discussion in the Committee. They helped the Committee understand if, and how, ICTs are important, and stimulated conversation and ideas about how the settlement sector could change to address future challenges.

B: Method

1. Participating agencies and organizations

When the committees were created at the September 2013 meeting in Ottawa regarding the Agency of the Future project, Adnan Qayyum agreed to be Committee Chair. Other Committee members were recruited at that meeting and at the P2P's Annual National Conference in November 2013. Participants were told about the Committee's mandate and several of those who agreed to be involved suggested additional people with an interest or background in ICTs.

The final members of the ICT Committee included:

- Meyer Burstein, Director of Policy and Planning for the Pathways to Prosperity Partnership (P2P)
- Grace Eidse, Executive Director of Altered Minds Incorporated (which operates the Manitoba Entry Program) and former President of the Manitoba Immigrant and Refugee Settlement Sector Association (MIRSSA)
- Rennais Gayle-Indire, Project Coordinator for the Alberta Association of Immigrant Settlement Agencies (AAISA)
- Mitch Kutney, Program Advisor with Employment and Social Development Canada
- Claudette Legault, Director of Programs and Services for ISANS (Immigrant Services Association of Nova Scotia) and former President of the Atlantic Region Association of Immigrant Settlement Agencies (ARAISA)
- Adnan Qayyum, a member of P2P and an education professor at Pennsylvania State University
- Laurie Sawatzky, Executive Director of South Central Immigrant Services and current MIRSSA President

Carl Nicholson, Executive Director of The Catholic Centre for Immigrants, while not a member of the Committee, also provided useful input.

The settlement volunteers who participated on the ICT Committee were especially well suited to the task. Their agencies are active across the full range of settlement and integration services and they had a strong personal interest in using ICTs to expand agency operations into new locations, including overseas, and to replicate existing services in an online environment. In addition, by virtue of either heading up or working within their provincial or regional umbrella associations, they were afforded a sector-wide view of settlement agency concerns and interests. Several participants had recently participated in exercises that involved the collection

of data on ICT use by the sector and the development of ICT projects on behalf of their own agencies and in collaboration with other agencies, as in the case of the 7 Oaks pilot study in Manitoba. Lastly, the members of the Committee were situated at a level in their organizations where they could appreciate the strategic significance of ICT investments, as well as the challenges.

2. How the work proceeded

A three-stage process for the group's work was created and suggested to Committee members early in the process. The stages were group formation, information gathering and analysis, and report writing.

Group formation

The Committee met seven times in ten months. Members were located in four time zones, so geography and resources required the Committee to walk the talk about the use of ICTs. Each meeting was held using synchronous teleconferencing with an asynchronous group wikispace for sharing ideas. During the first two meetings, time was spent creating a group dynamic. An important part of the coming together was sharing stories about how ICTs were being used, the struggles encountered, and the opportunities seen and sometimes fulfilled. These stories and ideas were discussed, initially, in the teleconference meetings and on the wiki.

By design, the group formation stage was exploratory and less structured. Open-ended questions were asked to foster an environment of sharing ideas about ICTs and to ask questions about their role in settlement services. Stories and ideas were neither constrained nor edited; nor was a framework imposed upon the discussion. This allowed Committee members to share their experiences and those of their organizations, openly. Importantly, Committee members also shared information about the ICT resources that their respective agencies were using or piloting. From these meetings, themes emerged about the use of ICTs in the settlement sector. These themes were organized into categories to create a typology of ICT use and ICT issues.

This typology was shared with Committee members for their feedback. This feedback served as a "member check", a method used to establish internal validity within qualitative research designs. Member check allows participants to comment on the interpretation of the qualitative information that has been analyzed.

Information gathering

The group decided that a two-stage process would be the most appropriate way to get a realistic portrayal of ICT use and related issues in the settlement sector. During the first stage, information was to be gathered from at least two case studies to provide depth to the stories of

ICT use gathered during the Committee's initial meetings. Committee members who worked in the sector were asked to provide the case studies, which were based on existing reports.

In the second stage, it was agreed that a survey should be undertaken to identify how common and broad the use of ICTs is in the settlement sector, as well as to identify issues and challenges that are being encountered, and potentialities that are foreseen. The survey was also seen as a useful vehicle for stimulating ideas among settlement agencies about the possibilities for using ICTs in creative ways.

C. Results and Analysis

Two types of themes emerged from the analysis of the stories and postings from the meetings, the wiki, and the case study reports. The first was about the current use of ICTs. There were numerous ICTs being used by the settlement organizations involved in the case studies. While it can be appealing and valuable to catalogue the types of ICTs in use (e.g. social media, phone apps), it is far more important to understand how and why they are used. A large body of research in other fields (e.g. education, health) suggests that the drivers for deciding ICT use should be organizational and client needs, not the novelty or affordances of the ICTs themselves. The purpose and function of using ICTs are more important because ICTs may require large investments and substantial organizational change; and ICT options can change quickly. So in this report, the typology of ICT use focuses on functions and possibilities.

The second theme was about the issues and questions that Committee members had concerning ICT use in settlement agencies. In some cases, agencies had planned and implemented specific projects using ICTs; in others, ICTs were being used experimentally to see if they could help address particular client needs. In both instances, issues – not unexpectedly – emerged as agencies thought about continuing to expand their use of ICTs for delivering existing services and for addressing new opportunities. Issues were also raised by Committee members who were not part of projects, but were trying to understand them. These issues (discussed below) are important for the agencies concerned and for the sector as a whole.

1. Typology of ICT in Settlement Services

A. Current ICT use by settlement and integration service agencies

This category focuses on the different ways agencies are using ICTs.

Delivering services to individuals

a. Training

- Internal staff professional development

- Online training for practitioners
- Delivery of professional development to settlement workers who cannot access F2F training
- Language services for newcomers
- Delivery of orientation services online

b. Other services

- Counseling services for newcomers
- Employment services
- Information and orientation services
- Supportive counseling
- Family assistance
- Interpreter services
- Health and wellness
- Housing
- Education
- Justice and legal counseling
- Community connections
- Assistance to universities
- Portfolio assessment for international students (e.g. eportfolio development)
- New staff getting their portfolios assessed
- Delivering pre-arrival services to newcomers

Communicating

a. External

- Build relationships with newcomers pre-arrival
- Build and maintain relationships with newcomers in Canada

b. Internal

- Update volunteers
- Communicate with staff

Creating and managing partnerships and marketing services to other organizations

- Build and maintain relationships with community stakeholders – e.g. promote member agency programs
- Build and maintain relationships with other service delivery partners (in various fields)
- Communicate within the settlement and integration sector - stay connected and respond to initiatives within the settlement and integration sector
- Advocate to governments and businesses
- Create partnerships with colleges and universities

- Provide services and expertise to colleges and universities
- Create partnerships with other settlement and integration agencies
- Provide services and expertise to/with other settlement and integration agencies
- Provide services and expertise to businesses
- Provide services and expertise internationally

Data and analytics

- Collect data on newcomers
- Measure impact of services
- Research client preferences based on their social media profiles

B. Issues related to the use of ICTs

This category focuses on the issues that engage agencies as they expand their use of ICTs, including questions they feel should be posed in a survey of ICT use.

Client preferences

- What are current client preferences for service delivery?
- Which of these include the possible use of ICTs?
- Where are clients located?
- What different types of clients can be served (i.e. immigrants, temporary foreign workers, students) via ICTs?

Plans for ICTs

- Are there agency level plans for using ICTs and, if so, what are they?
- Serving what geographic locations?
- What is the current capacity of agencies for using ICTs, both in terms of personnel and technologies?

Expectations of ICTs

- What opportunities might agencies have for using ICTs?
- What challenges do agencies expect to encounter?
- How may ICTs encourage agencies to innovate?

Case Studies

The case studies were especially useful in illustrating category A (above), providing rich examples of how ICT is being used by the sector. These are described below:

Delivering services

Altered Minds Inc. provides a rich example of delivering orientation services via ICTs. Altered Minds Inc. is a not-for-profit organization, located in Winnipeg, that provides

settlement orientation, educational programs, and services to newcomers to Manitoba via the ENTRY program. From January to March 2014, teachers from the ENTRY program collaborated to create an online version of ENTRY's 1-week "Express" orientation, addressing all of the learning outcomes covered by the face-to-face program. The online program was created on Canvas, a learning management system that is used for designing, administering, delivering, grading, tracking and reporting educational and training programs. The online version of the ENTRY program had four modules. These modules had asynchronous (via Canvas) and synchronous components (via Big Blue Button – a conferencing and webinar tool), where learners could access module materials, complete activities, and interact with instructors.

The online version of ENTRY was pilot tested by four participants in March. The participants completed surveys, and focus groups were held with participants and staff to evaluate their experience and gather feedback for future development. Two of the participants had completed Entry Program classes in person, so Altered Mind Inc. could compare and evaluate the advantages and disadvantages of both formats.

The main driver for creating this training program was to provide newcomers more flexible formats for accessing the ENTRY program. Many of the in-person programs are offered in downtown Winnipeg; however, newcomers are settling in other parts of the city, with many Filipinos and South Asians living in the north end. For a variety of reasons – work, transportation, childcare, and busy schedules –many are not able to reach programs downtown. Offering ENTRY in other, more accessible formats allows newcomers who are not currently taking advantage of settlement orientation upon arrival to be reached.

Seven Oaks Adult Learning Centre in Winnipeg offers immigrant settlement services. The Adult Learning Centre is part of the Seven Oaks School Division. The Adult Learning and Settlement Services Centre uses ICT tools for Workplace Health and Safety training, English as an Additional Language classes, and staff professional development. The organization has also used blogs where students post what they have written and other classmates can respond. Students also write on Google Docs, which allows them to access their written work anywhere – at home, or on a Smartphone – and review revised versions of their writing. The agency tries to help clients improve their computer literacy, from basic functions like creating and using an email account to using a variety of web resources. Seven Oaks Adult Learning Centre uses its website to organize client meetings, to conduct needs assessments, for stakeholder meetings and professional development sessions, and to share settlement resources, services and information.

Members of the Alberta Association of Immigrant Serving Agencies (AAISA) also use ICTs extensively. AAISA includes nineteen immigrant serving agencies located in twelve municipalities across the province. Clients of these agencies are permanent residents who have lived in Canada for less than five years, temporary foreign workers, refugees, and students. In 2012-2013, information from seven of the nineteen agencies indicated that they served over 45,000 clients in the area of Needs Assessment and Referrals; over 50,000 clients in the area of Information and Orientation; over 10,000 clients in Language Learning and Skills Development; and 25,000 clients in the field to employment services.

AAISA itself provides online training for staff belonging to its member agencies via Blackboard Prosite, a Learning Management System. In 2013-2014, 12 of 19 member agencies sent staff to online training. As well, AAISA delivers on-line professional development services to settlement workers and practitioners in parts of western Canada where they are unable to access face-to-face training. AAISA is also involved in traditional training through academic institutions - training that sometimes includes online learning through Desire to Learn, another learning management system.

AAISA also uses ICTs to train its own staff. For example, it uses "Join.me" to help staff who are having difficulties using particular software for service delivery. Join.me is an online meeting tool that has a robust screen sharing function, allowing trainees to learn step-by-step how to use particular tools and software on their computers.

All agencies use ICT for settlement and integration support services. Some also use it to deliver pre-arrival orientation services to clients who have access to a computer, to the Internet, and to basic software. Agencies also use email, texting and telephone (in emergency situations). And they market their services through their agency website. All agencies use government and employment portals, such as the Alberta Learning Information Service site (ALIS), the Canadian Immigrant Integration Program site (Newcomer Success), and the Calgary United Way Benefit Navigator. A resource bank is being developed for newcomers but has not yet been unveiled in Alberta.

Communication

Fifteen of nineteen AAISA member agencies use ICTs for internal and external communication. They use Facebook to promote member agency programs to communities across Alberta; they provide information to volunteers and committee members via blogs and other portals to foster discussion groups; and they convene

board and committee meetings via Collaborate, a web conferencing tool. AAISA is also using Collaborate for a webinar where it is piloting a certification review meeting. Files are shared via Dropbox to reduce paper consumption. And Twitter is being used to keep abreast of topics related to the settlement and integration sector.

Altered Minds in Manitoba uses Facebook and Twitter to communicate to various groups about upcoming opportunities. Email, by contrast, is used to communicate within the sector and with clients, generally, on a one-on-one basis. The Altered Minds website is a key instrument for communicating with the larger community and for increasing agency profile, both with the community and with the settlement sector.

New and Existing Partnerships

AAISA has current partnerships with employers from the energy, food, post-secondary, government, and non-profit sectors. Member agencies connect with these partners through face-to-face events, such as onsite meetings, fairs, and conferences.

Tradeshows and fairs are held in-person but organized via email and websites. Agencies also connect through LinkedIn to increase their profiles, to connect with stakeholders (i.e. other organizations, new hires, experts, etc.) and to connect with employers, career colleges, other newcomer serving organizations, and universities.

Altered Minds in Manitoba also uses Facebook to connect with partners and clients on new initiatives or opportunities, as well as relying on email and the agency's website.

Data and Analytics

All settlement agencies use multiple ICTs to collect data. Most use iCARE - Immigration Contribution Agreement Reporting Environment - as required by CIC. iCARE does not support or encourage data sharing by agencies; however, because of the utility of data sharing, many agencies have additional systems in place. Altered Minds, for example, uses Correlate Protegra, a data collection tool used for newcomer referrals and to record information on the number of clients served. Seven Oaks uses Take Two, a data management system developed and used in Manitoba for administration in school districts and colleges. Seven Oaks also uses ThoughtStream, an online research tool that helps analyze data. At AAISA, Microsoft Access and Excel are used for data collection and analysis. (OCASI has recently launched OCMS, a cloud-based data management system (OCASI Client Management System), for generating detailed reports on individual and group activities.

2. Capacity issues in relation to the introduction of ICT by the settlement sector

Notwithstanding the extensive use of ICT by individual agencies - described in C.1 - formidable challenges confront the sector as a whole with regards to the introduction of transformative new technologies. These challenges will need to be addressed if the settlement sector is to remain competitive, coherent, and able to take advantage of new business opportunities that result from changes in policy and the economic circumstances facing newcomers. Critically, some of the key capacities that are required for the sector to advance and to make better use of ICT cannot be fostered at the level of individual agencies but must, instead, be addressed at the sector level by agency coalitions or by collective actions taken under the auspices of the provincial, regional, and national settlement umbrella associations.

In the preceding discussion and analysis, ICT use has been treated, implicitly, as a positive force for enhancing sector performance and reach. While this is generally true – and is, in fact, the premise of this paper – it is extremely important for the sector to recognize that ICT also poses a serious threat to current networks and existing patterns of resource allocation. Because settlement services have, until recently, been conceptualized mainly as face-to-face transactions between agencies and newcomers, *geography* and *location* have been the primary determinants of agency resource allocation, delivery partnerships, and affiliations under provincial or regional umbrella associations. These relationships and organizational patterns are now threatened by policies that favour more technologically savvy ‘consumers’ who want learning products that can be accessed remotely and asynchronously, and by new technologies that allow learning ‘products’ to be delivered at a distance. It is important for the sector to understand that the same logic that favours the delivery of pre-arrival services by Canada-based agencies to potential newcomers in New Delhi, also extends to the delivery of post-arrival services in Edmonton by an agency based in Winnipeg.

Breaking the rigid connection that currently exists between service delivery and agency location will open the door to coalitions of large, multi-service agencies from across the country coming together to offer services in new markets and, potentially, to compete with local service providers. In the near term, this would yield gains, offering high quality, low cost services to newcomers; in the longer term, however, it could damage areas such as volunteer recruitment (which is more responsive to physical communities than to communities of interest) and connections with ethnocultural groups (which depend on local engagement and the trust this elicits). Anticipating these developments and evolving sector protocols that ensure the appropriate involvement of smaller agencies and preserve local engagement are important tasks for umbrella associations.

Another challenge that will require stewardship by settlement umbrella associations derives from the importance of scale. Generally, the greatest returns to ICT investment will not accrue

to individual agencies operating in mature markets and seeking incremental advantages. Instead, they will result from large scale, cross-cutting changes that implicate multiple agencies across multiple fields of endeavour. Examples might include comprehensive client data integration and tracking (across geographic locales and service domains), sector-wide partnerships to produce and deliver pre-arrival services and distance education, and large-scale, collaborative efforts to promote recruitment in multiple markets requiring diverse skills and ethnic connections.

Promoting sector-wide technological change will not be easy. At the micro or agency level, ICT solutions have taken the form of off-the-shelf hardware and software; at the sector level, however, much larger investments in customization will be needed. Two important factors hold back this investment:

1. *The reluctance by agencies to 'foot the bill' for solutions that would be available to non-contributors.* This produces 'hold back' ... a tendency to wait for others to invest in order to obtain benefits for free. (Underinvestment in 'public goods' is a well documented economic phenomenon.) To overcome agency reluctance, the sector will need to behave as a collective, basing its decisions and investments on shared strategic directions, strong cross-agency and cross-regional partnerships, and shared protocols for benefiting from the technological innovations that are created. Currently, such organizational mechanisms are underdeveloped at both regional and national levels, especially insofar as ICT is concerned. Tellingly, the 2013 National Settlement Conference did not contain any sessions devoted to ICT challenges; similarly, scanning the websites of the national and provincial-regional umbrella associations does not reveal important attempts to foster technological innovation or to construct the organizational protocols that will be needed for the sector to act on ICT opportunities.
2. *The nature of the relationship between settlement agencies and their main funder, Citizenship and Immigration Canada.* CIC's funding is primarily directed to the purchase of direct newcomer services. Scant support is available to institutions for capacity building, including support for research, knowledge dissemination, and experimentation with new technologies and new organizational arrangements not directly tied to the services being purchased. As a result, efforts like the one by Manitoba-based agencies to use IRAES/Correlate to manage and coordinate client referrals across agencies and to automatically generate reports and forms is the exception rather than the rule.

Funding for capacity-building within the settlement sector has come from sources such as Community Foundations, Trillium and the United Way. To date, however, ICT development has not been seen as a key priority by these 'alternative' funders. To address this problem, CIC will need to be persuaded to adopt a supply-management approach whereby it involves itself to a greater degree in building the capacity of the

sector on which it depends for the delivery of its services. Alternatively, the sector will need to organize itself so it is able to self-finance ICT innovation by collectively identifying and acting on business opportunities.

Recommendations for CIC and stakeholders

Two overarching prescriptions inform this section. The first is that the settlement sector – meaning the provincial, regional, and national umbrella associations – as a matter of priority, implement a national ICT review aimed at creating an action plan to guide agencies in the use of ICT and to encourage collaboration within the sector on all aspects of ICT development and implementation. The second is that CIC act as a leader and catalyst for technological advancement using a mix of fiscal incentives and accommodative changes in the Department's interface with settlement agencies. Specific recommendations follow:

1. A comprehensive survey should be undertaken of existing and projected uses of ICT by settlement organizations. The survey would also examine ICT opportunities and barriers to expansion, including capacity issues and impediments resulting from the need to interface with CIC systems (monitoring, data collection, and financial management). The survey would equip both the settlement sector and CIC with the basic information that is needed to act coherently and to prioritize technology investments – such as, information about client preferences and responses to ICT. The survey should examine the following issues:
 - Use of ICT for delivering in-house training and professional development to agency staff
 - Use of ICT for delivering services to newcomers and to institutions that interact with newcomers (including employers and educational institutions) across all service fields
 - Perceptions of client preferences and related challenges, parsed according to client location and type – immigrant, temporary workers, students
 - Use of ICT for external communications: with newcomers, community stakeholders, service delivery partners, government and business
 - Use of ICT for internal communication: with staff, agency volunteers, and for agency promotion within communities
 - Use of ICT for marketing and partnership development
 - Use of ICT for newcomer data collection, inter-agency referral, monitoring and evaluation, analyses and research

Developmental work on instrument design for a broader survey that includes ICT concerns has been initiated by the Pathways to Prosperity research initiative. Initial ideas for the survey were tested at the P2P's November conference in Montreal.

2. CISSA-ACSEI and the provincial and regional umbrella associations should develop a national sector plan for capitalizing on the opportunities that ICT offers settlement agencies. The plan should address how to promote ICT investment, how to encourage open exchanges regarding ICT use among agencies, and what role CIC could play.

ICTs can represent large investments that require substantial organizational changes. As well, the types of ICTs available can change quickly. Individual agencies often lack the wherewithal to undertake the required scale of investment and, even where they do, they may be reluctant to be the 'first responders' when they could benefit from similar investments by others. In this situation, a collective response would spread the cost and accelerate innovation.

Notwithstanding the importance of collective action for significant advances in ICT use, the websites of the national and provincial-regional umbrella associations do not reveal any important attempts at the sector level to foster technological innovation or to construct the organizational arrangements that would be needed for the sector to act collaboratively on ICT opportunities.

3. Related to Recommendation 2, the settlement sector should establish a promising practice repository where agencies searching for ICT 'solutions' could exchange information with other agencies that already have experience in the area. This exchange could be integrated into the Agency of the Future proposal that is currently being developed by the sector in collaboration with P2P researchers and CIC. Some means for offsetting the development costs incurred by initiating agencies - including 'licensing' arrangements - might be considered as a means for promoting the sharing of practices.
4. CIC should encourage ICT investment within the settlement sector by explicitly recognizing it as a legitimate activity in departmental calls for proposals (CFPs), which are the primary vehicles for funding the settlement activities undertaken by service provider organizations. This recognition could take the form of expressly including ICT within the category of 'Indirect Services', as well as in the lists of 'eligible activities' and 'eligible costs'. CIC could also allocate a small, fixed percentage of CFPs to ICT investments or it could issue a specific call for ICT development in designated areas. The

National Settlement Council should consider these and other ideas for how best to stimulate ICT development by service providers.

5. The settlement sector and CIC should initiate a joint project whose goal would be to establish technical parameters to guide settlement agencies and to promote coherence in ICT development and use. The goal would be to ensure that data from different agencies and locales could be easily integrated and aggregated; also, that ICT-enabled services could be freely exchanged.

Related to this exercise, CIC should take the lead in setting policy around exchanges of confidential client data among agencies and adopt a flexible approach to facilitating linkages between proprietary local, customized data – used for program management, inter-agency coordination, monitoring, and evaluation - and CIC's departmental performance measurement systems, activity reporting, and financial management systems. The ability to integrate data would produce significant efficiencies and enrich the understanding of client needs and behaviours. It would also greatly benefit service provider organizations and, thus, increase their incentive to take CIC's data collection efforts seriously, enhancing overall data accuracy.

6. Provincial and regional umbrella associations should offer staff and executive training in the application and use of ICT. This could include training based on ideas derived from the promising practice research referred to in Recommendation 3; it could also include training modules that focus on standard agency practices and services that would benefit from ICT investment.

Training modules could be developed centrally and adapted to local conditions by interested agencies. As well, different provincial/regional associations (or other agency configurations) could specialize in the type of training they offer.